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COLOURED

ILLUSTRATIONS
OF
British Birds,
AND THEIR
Eggs.

BY H. L. MEŸER.

IN SEVEN VOLUMES,
CONTAINING FOUR HUNDRED AND TWENTY-TWO COLOURED PLATES.

VOL. VII.

LONDON:
WILLIS AND SOTHERAN.
1857.

[illegible]

BODLEIAN
1 JAN 1941

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OF
THE SEVENTH VOLUME.

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PREFACE.

It is with much satisfaction that the Author now lays before the Public another and a complete edition of his History of British Birds and their Eggs. The former editions were received with so much favour that he has been stimulated to fresh exertions, by which various inaccuracies have been corrected and numerous additions made. Many traits of the several characters of the Birds have been given from his own personal observation, and the remainder are drawn from sources of unquestionable authority.

While he has been attentive to correctness in the descriptions, he has not been unmindful of accuracy in the delineation of the figures, all of which have been drawn by himself, mostly from living specimens, and every plate coloured under his own immediate inspection. The Eggs of the Birds have been introduced whenever obtainable. In conclusion, the Author believes that considering the large number of plates, and the care with which the whole work has been got up, as well as the low price of publication, it may not unreasonably claim to be at once the most complete, and the cheapest History of British Birds ever published.

Milford, Surrey.

ERRATA.

VOL. I. Page 18, line 6, *for* enable *read* enables.
„ „ 31, „ 10, „ escapes *read* escape.
„ „ 126, „ 9, „ these species *read* this species.
„ „ 126, „ 31, „ respectable *read* respectful.
„ „ 129, „ 23, „ dusked *read* dashed.
„ „ 140, „ 7, „ to its age *read* to age.
„ „ 155, „ 23, „ rings *read* reins.
„ „ 156, „ 7, „ thumb *read* spurious winglet.
„ „ 159, „ XXIII. *read* XXXII.
„ „ 168, „ 6, „ the Swallow *read* Swallows.
„ „ 174, „ 11, „ or when *read* as, when.
„ „ 210, „ 28, „ them any *read* the many.
VOL. II. Page 61, line 29, *for* rush *read* rust.
„ „ 221, „ Lotor (RENNIE) *read* Alba (LINN.)
VOL. III. Page 184, line 32, *for* Steyming *read* Steyning.
„ „ 189, „ 3, „ Bewick *read* Berwick.
VOL. IV. Page 6, line 6, *for* finger quill *read* first quill.
„ „ 34, „ 28, „ part sare *read* parts are.
„ „ 63, „ 8, „ voices *read* flight.
„ „ 74, „ 22, „ over the eye *read* around the eye.
„ „ 96, „ 31, „ feather *read* feathers.
„ „ 116, „ 9, „ looso *read* loose.
„ „ 171, „ 23, „ egg figured 178 *read* 171.
„ „ 191, „ 8, „ tps *read* tips.
VOL. V. Page 122, line 8, *for* chapped *read* chopped.
„ „ 143, „ 11, „ mellow green *read* yellow green.
VOL. VI. Page 30, line 8, *for* mos tnumerous *read* most numerous.
„ „ 86, „ 15, „ egg 241 *read* egg 246.
„ „ 103, „ 6, „ north-eastern *read* north-western.
„ „ 113, „ 24, „ tarsus *reap* carpus.
„ „ 130, „ 13, „ northern *read* southern.
„ „ 156, „ 13, „ of rivers *read* or rivers.
„ „ 160, „ 8, „ Kurilen and Aalaschnka *read* Kuriles and Analaschka.
VOL. VII. Page 50, line 12, *for* Pommerania and Muklenburg *read* Pomerania and Mecklenburg.
„ „ 53, „ 15, „ burnt umber brown *read* pale blue.
„ „ 66, „ 9, „ Saulirkerry *read* Sauliskery.
„ „ 124, „ 18, „ darkish *read* darkest.
„ „ 136, „ 4, „ molluscous shell fish *read* mollusca.

ILLUSTRATIONS

OF

BRITISH BIRDS.

NATATORES. *ANATIDÆ.*

PLATE CCLXXI.

SMEW.

MERGUS ALBELLUS.

THE Smew is a periodical winter visitant in Great Britain, more frequently met with in the southern and eastern counties than in the northern; their sensitiveness of cold causing them to prefer localities of moderate temperature, and water free from ice. A fine specimen of this species has been for some years kept on the ornamental lake in St. James's Park, London, where we have greatly enjoyed the sight of it, as its position on the water is exceedingly elegant.

The geographical distribution of the Smew extends over Europe, Asia, and America, inhabiting during the summer months, the northern parts, such as the Icy Sea, and the mouths of the rivers that run into it; the entire extent of the arctic region, Norway, and Asiatic Russia. On the approach of severe weather it migrates to the south, and is consequently met with on the lakes, rivers, and coasts of most countries of Europe, Asia, and the United States of America.

Although the present is considered a maritime species, it is more frequently found near the shore, and in the smaller bays and inlets than upon the open sea: it seems also very partial to fresh water, and is, consequently, not uncommon on inland seas, lakes, rivers, ponds, and even the springy sources of rivers, &c. The Smew endures frost until it meets with floating ice, which drives it to sheltered spots.

The food of the Smew consists in fish of the smallest kinds; crustacea and small frogs, but very rarely vegetable matter.

The manner in which the Smew obtains its food, is by diving, and pursuing it under water, and as the bird is enabled to remain a considerable time submerged, it becomes a very amusing scene, where a group of Smews can be watched in pursuit of their vocation.

During the breeding-season the northern shores and rivers of Russia, and the northern parts of America, abound with this species.

The nest, which is composed of dry grasses, and lined with the feathers from the bird's own body, is either placed on the ground near the water, on some small island, or in a hole in a tree. The eggs, which vary from ten to fourteen, are in shape and colour as represented in our plate.

The peculiar form of the head and beak of the Smew make this bird sufficiently conspicuous to distinguish it from other water-fowl, and the black and white well-defined colouring of the adult male in particular contributes greatly to its immediate detection.

The motions of the Smew on the ground, much resemble those of ducks in general, and are not very elegant; but its flight is quick, noiseless, and powerful for its size, and its powers of swimming and diving are perfect both in capacity and beauty.

The natural size of the adult male Smew is seventeen inches from the tip of the beak to the extremity of the tail; the beak from the forehead, one inch and a quarter; the tarsus one inch and a half.

The plumage of the adult male is as follows:—On each side of the face, and surrounding the eye, is a patch of black, with green reflections; the occiput and part of the crest, the same; the head, neck, breast, and all the under parts pure white. The back, and two crescent-shaped bands that partly encircle the lower part of the neck are black. The shoulders, and part of the lesser wing-coverts are white; the scapulars are white, partly greyish, and are edged on the outer webs with black; the secondaries and greater wing-coverts, glossy black, with a narrow ridge of white; the sides and flanks are marked with transverse zig-zag lines of black. Upper tail-coverts and tail bluish grey; the quills are dusky; the beak, legs, and feet bluish grey; the eye pearl grey.

The female is smaller than the male, and the plumage differs in having the head, and occipital crest, and nape brown; the throat and upper part of the neck white; the lower part of the neck, breast, sides, and flanks, ash-coloured; the back, scapulars, upper tail-coverts and tail grey, mixed with brown. The middle part of the lesser wing-

remain constant to each other for life, and are also much attached to their breeding ground, to which they return. Both the male and female work at the construction of the nest. The nest itself is constructed on the surface of the water, and only sufficiently attached to some reed or flag that the stream or wind may not make it change its place: the materials of which the nest is composed, are roots and stalks, as well as the leaves of flags, and other aquatic plants, that are heaped one upon another to the height of six or seven inches, and double that in width; the eggs are from three to four in a nest, and resemble in size, shape, and colour, that represented in our plate. The young birds chirp and swim about as soon as they are hatched.

The Great Crested Grebe measures twenty-one inches, the beak from the forehead two inches.

The adult male bird in spring plumage has the crown of the head, the crest, and the ruff round the neck, of a glossy black, shading over into reddish yellow on the sides of the head; the front part of the neck, and all the under parts are silvery white; a streak above the eye; cheeks and throat white; the hinder part of the neck, back, scapulars, and wing coverts, are dusky brown; the secondaries being white, form a bar across the wing; a naked space between the eye and beak red; the top ridge of the beak is dusky, the base reddish, and the tip white-horn colour; the legs are dusky on the outside, and cream-coloured inside; the eyes are bright red.

The bird of two years old has not yet come to its perfect state, and its crest is consequently small, and edged with white; the red about the face is wanting, and a dusky streak runs before and below the eye.

The bird under two years of age has no crest, its forehead and face are white; these parts and the upper part of the neck, are marked with numerous zig-zag lines of a dusky colour, and the eyes are yellow.

The egg figured 272 is that of the Great Crested Grebe.

PLATE CCLXXIII.

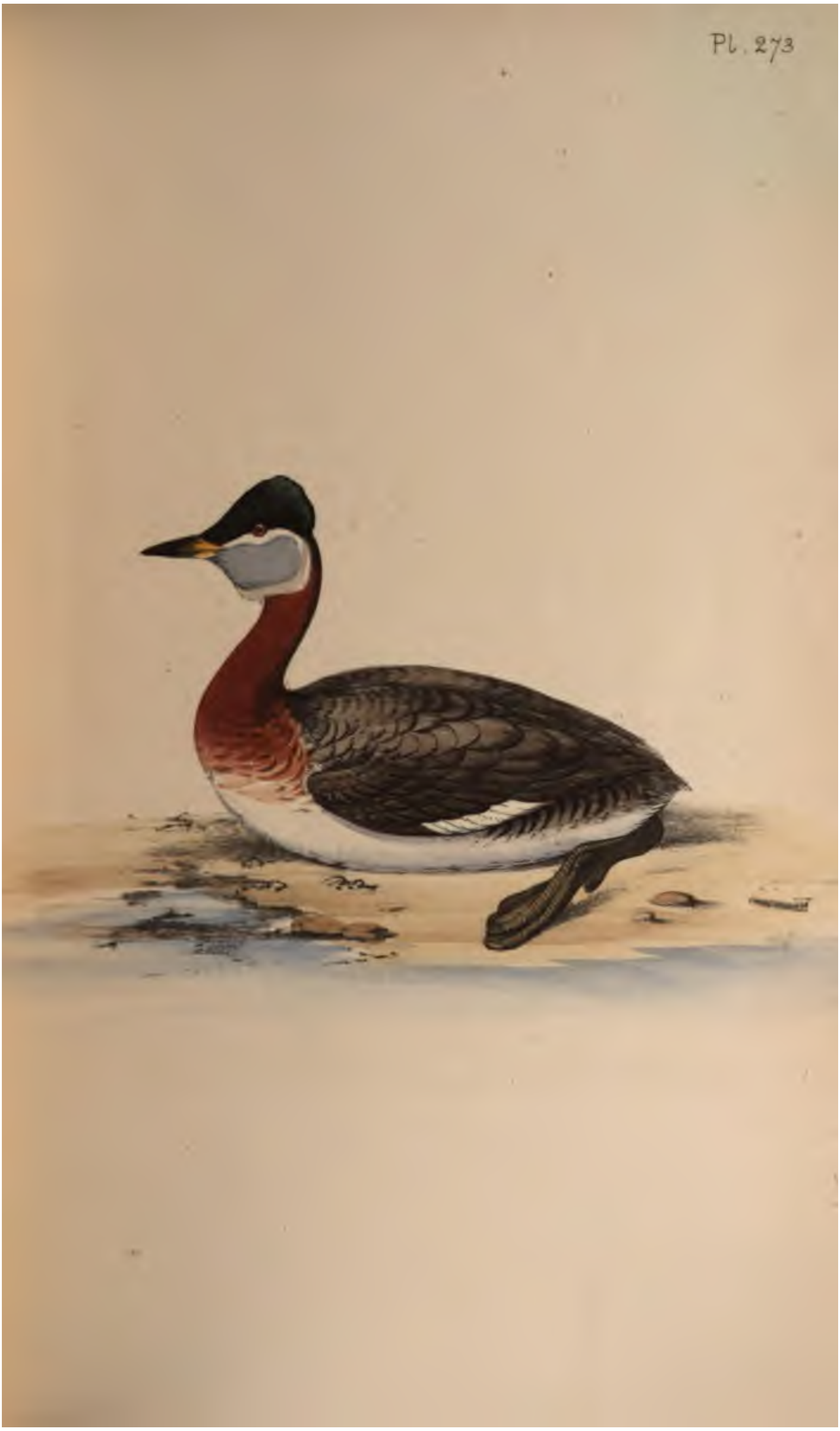
RED-NECKED GREBE.

COLYMBUS RUBRICOLLIS.

The Red-necked Grebe is a winter visitant in Great Britain; by some ornithologists it is supposed to be more rare than the great crested grebe, and by others it is said to differ in its being here a winter visitant only. Mr. Selby assures us, that he has met with it in Northumberland as frequently as any other species. We are of opinion that the fact of its frequenting salt water by preference, and its peculiar habits, which we shall hereafter mention, combine to keep the bird from the eyes of the more common observer. In the eastern countries of Europe, the Red-necked Grebe is frequently met with on the lakes and largest rivers; in America it is also well known, and was found by Sir John Franklin during his expedition in 1822 upon the Great Slave Lake, and M. Temminck has received specimens from Japan. In Holland the Red-necked Grebe is found on the lakes, equally so in France, Switzerland, and Italy.

The locality frequented by the present species is at all times the watery element, and its chief occupation is among the thickest mud below its surface; its capacity of diving is very perfect, as its food is obtained by searching among the

Pl. 273



weeds; it consists of small fish, insects, and their larvæ, and, like the foregoing species, feathers from off its own breast and belly are always found in the stomach of specimens that are examined. The wings of the Red-necked Grebe, like those of several others of its family, are very small in proportion to the size of the bird, and these it does not use while in pursuit of food under water, as they would only retard its progress among the thick weeds; but its legs and feet are so formed that they can paddle with them at pleasure in all directions, as they act more like the fins of fishes than the usual legs and feet of water birds.

Although the wings of the Red-necked Grebe are small, the bird gets on very well when it has fairly started and attained a sufficient height in the air; but it is unable to do more than proceed in a straight direction.

The present species is not very shy until it has frequently been fired at, and will generally return to the place from whence it was driven away. The call-note uttered rather slowly sounds like the word *cack*, *cack!* besides which these birds make a noise like young pigs and the neighing of horses at a distance, when they are at their gambols and pursuing each other late in the evening.

The reproduction of the species is carried on in lakes, rivers, and ponds, where the reeds and rushes are in abundance, and where the bottom of the water and surrounding shores are soft and muddy; several pairs breed in the same locality, although each keeps his immediate spot inviolate to itself. Both male and female assist in constructing the floating fabric for the reception of the eggs, which is usually composed of decayed flags and rushes; the nest itself is placed on the water, on the edge of a bed of rushes, or overhanging bushes, and only sufficiently fastened to either, to prevent its floating away. In the month of

May three or four eggs are to be found in the nest, in size and colour as represented in our plate. The parent birds are so much attached to the spot that contains their nest, that if either is wounded on the water by a shot, it returns immediately to the nest and remains on the eggs until it dies. The young follow the parents on the water as soon as they come out of the shell, and soon learn to dive.

The entire length of the Red-necked Grebe is seventeen inches and a half; the beak from the forehead one inch nine lines; the tarsus two inches two lines; the wing, from the carpus to the tip, is seven inches two lines; the tarsus in the Grebes is broad and flat like the blade of a knife, the toes and webs equally so, and covered with scales throughout.

The plumage of the adult bird in the spring is as follows: the forehead, the top of the head, and the tuft are blackish-brown; the throat is grey; the back of the neck, and all the upper parts are blackish-grey; the front of the neck, the sides and upper part of the breast orange-brown, the under parts white; some dusky streaks appear on the thighs; the secondary quills are white at their basal half. The beak is black, with the exception of the base, which is yellow. The eyes are red, the legs are black on their outer surface, and yellowish or oil-green on their inner side.

The young birds of two years old have the throat white; the top of the head, and back, and all the upper parts dusky; the neck and breast are pale reddish, mixed with dusky and ferruginous; the under parts more spotted with dusky on a white ground; the base of the beak is oil-yellow.

The egg figured 273 is that of the Red-necked Grebe.

Pl. 274

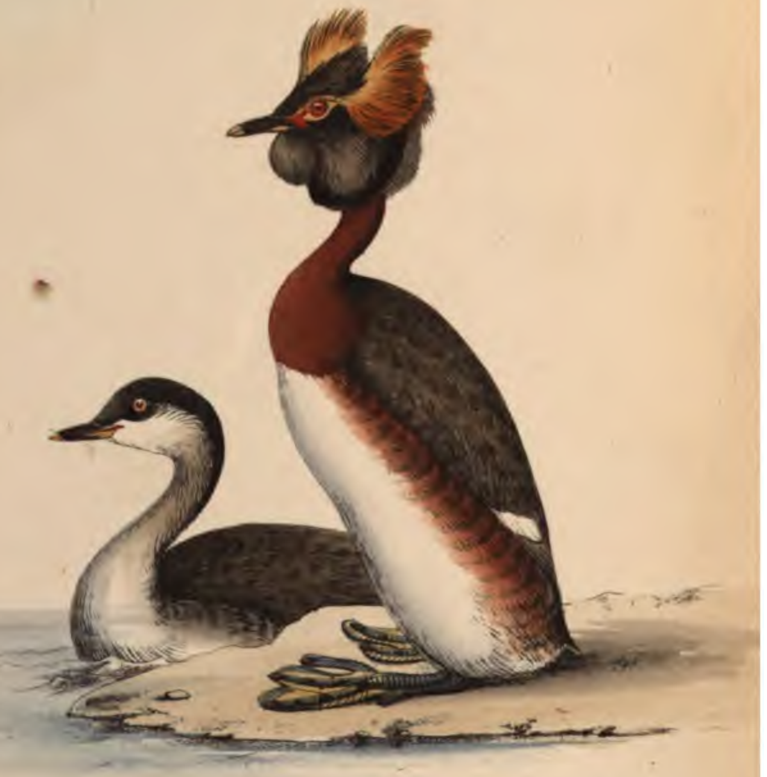


PLATE CCLXXIV.

SCLAVONIAN GREBE.

PODICEPS CORNUTUS.

The Sclavonian Grebe is indigenous in Great Britain, but not numerous; and more frequently occurs on the western and south-western coasts than on the eastern, and may be considered rare in the northern counties. The geographical distribution of this species extends over the north-western coast of Europe and the northern provinces of America, ranging, on the latter continent, from Canada to Florida. In Iceland the present species frequents the most southern parts by preference; in Holland and France the Sclavonian Grebe is of rare occurrence. In the northern parts of Italy, Tuscany, and in Sclavonia, the present species is found, as also on the lakes of Switzerland, the Rhine and the Maine, during its migratory wanderings. This species is nowhere numerous in Europe, and still less so in its spring plumage.

The northern migration of the Sclavonian Grebe takes place in April and May, and in October and November it returns to milder regions in order to avoid the inclement winter season; always performing its migration during the night.

The locality chosen by this bird is the sea-coast and lakes, or large ponds, and inlets in rivers, that afford the necessary shelter of rushes. The adult male of the present species is a very beautiful bird, and may be considered the handsomest of its family; and the plumage of its head is so peculiar and large, that it is not to be mistaken for any other,

This species is not shy, and therefore easily seen; it does not hide among the rushes like others of its family, but seeks the open surface of the liquid element on the approach of danger, with the view of keeping its proper distance. Sociability with its tribe is not to be reckoned among the virtues of this species, as it is a rare occurrence to meet with more than three or four in one spot, even during the migratory season. The attachment of a pair of these birds to each other is remarkably great; when one of them happens to be shot, the other remains with it and tries to induce its mate to rise and follow it.

The food of the Sclavonian Grebe consists of insects that abound among the aquatic herbage it frequents, and thus it most probably happens that the stomach of this bird frequently contains vegetable matter, insects, and feathers, in the same quantity as has been remarked in the histories of the foregoing species. Its manner of obtaining food is by diving, and the bird may be seen swallowing its prey every time it emerges from the deep.

The reproduction of the species takes place in many parts of Europe and America, but principally in the more northern countries enumerated as its summer habitation; although some pairs remain in latitudes on an equality with our own. The nest is placed among scanty herbage by the water-side, or among the reedy tufts near the shore: its composition is a mixture of reeds, both fresh and decayed; its fabric is a loose structure of these substances, and frequently floats rather than rests, and is more wet than dry; the eggs are three or four in number, agreeing in shape, size, and colour, with the one represented in our plate.

It is a remarkable fact in the character of this species, that it generally swims about near the shore, and scarcely ever dives on the approach of danger until it has become imminent; all other known grebes dive the moment they perceive danger.

The adult male of the Sclavonian Grebe measures thirteen inches and a half in length; the beak from the forehead ten lines and a half; the wing from the carpus to the tip nearly six inches; the tarsus one inch and three quarters. The plumage in the spring of the year is as follows:—the forehead, occiput, and the ruff that surrounds the head and upper part of the neck are dusky black, of a glossy texture, and reflecting purple where the light shines upon them; the space from the beak to the eye, is carmine red; the feathers around the eye, and those that compose the horned tuft on the back of the head, are of a bright orange brown colour; these feathers are so numerous, that the tufts cannot, under any circumstances, be made to lie close, and when the bird carries them erect, they are very ornamental; the neck and upper part of the breast are very rich ferruginous chestnut; the nape, hinder part of the neck, and all the upper parts are dusky; the tips of the secondaries are white, and form a conspicuous band across the wing; all the under parts are white, the sides and flanks intermixed with dusky and ferruginous; under tail-coverts white; the beak is black; the base of the under mandible pale pink; the tip blossom colour; the eyes are yellow around the pupil, and bright red on the outer circle; the eyelids like the surrounding feathers of the eyes; the legs and feet are black on their outer surface, and grey on the inner; but all tinged with pale brown pink.

The difference between the male and female is chiefly in their comparative measurements, and a very slight variation in the depth of colouring.

The young birds are ash-coloured on the upper parts of the head, from the beak to the nape; the chin, throat, and sides of the head white; the rest of the upper parts dusky; the front of the neck and all the under parts are pale dusky; the beak dusky; the base of the under mandible and the tip horn white; the legs and feet are dusky, and paler on the inner parts; eyes are paler in their tints.

The second figure in the plate represents the adult in winter plumage.

The egg figured 274 is that of the Sclavonian Grebe.

Pl 275.

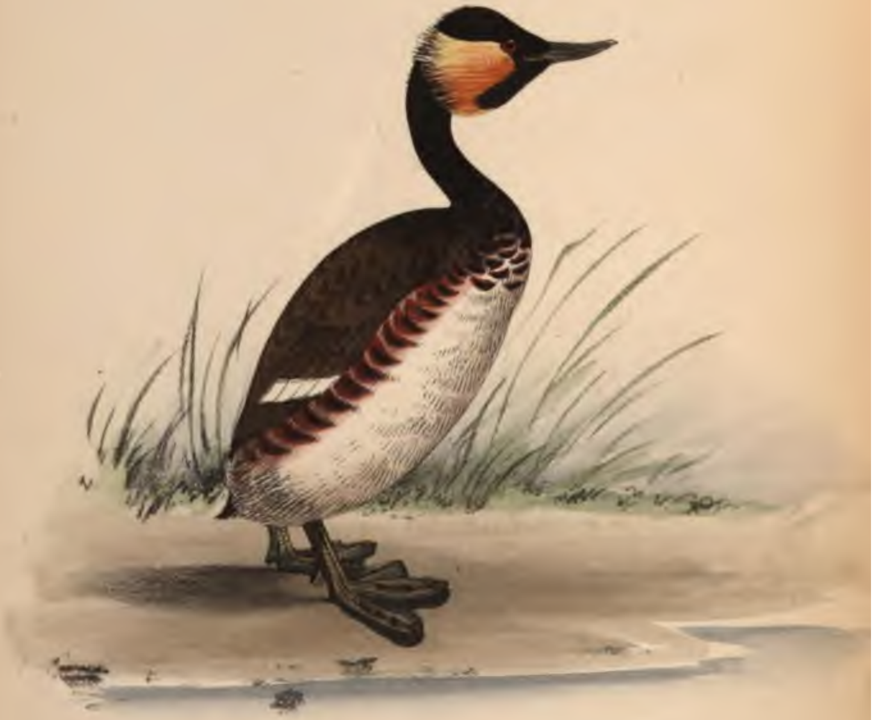


PLATE CCLXXV.

EARED GREBE.

PODICEPS AURITUS.

The Eared Grebe is a winter visitant in Great Britain, occurring less frequently than the foregoing species, particularly in its perfect plumage. Mr. Selby states that he has frequently met with it in winter in its young plumage on the Northumberland coast; and adds also, that a few breed occasionally in the fenny districts and grassy pools of our eastern counties.

The geographical distribution of the present species extends over most of the north-eastern countries of Europe, but no mention is made of its being found in America, beyond a report that it inhabits some parts of the United States. The continental countries enumerated as the residence of the Eared Grebe are, Lapland, Sweden, Russia, Siberia, Germany, Switzerland, and Italy; it also inhabits Zealand.

It is rarely found in Holland, but M. Temminck mentions that it is more plentiful in the Adriatic, and in the Bay of Cagliari.

The chosen localities of this species are rivers, fresh-water lakes, and, at stated times, the sea-coast.

NATATORES. *COLYMBIDÆ.*

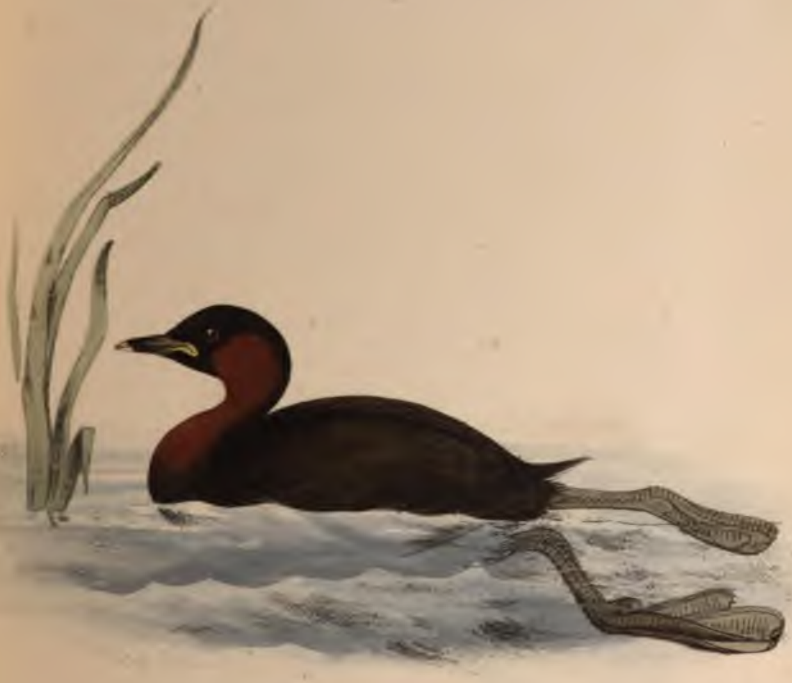
PLATE CCLXXVI.

LITTLE GREBE.

PODICEPS MINOR.

The Little Grebe is an undoubted British species, known to every one, and the smallest of its family. The provincial name of this species is Dabchick, by which name it is generally known. In consequence of the more suitable nature and of the lesser rapidity of the streams, this bird is more abundant in the southern than in the northern counties, but still it is very generally distributed over the country.

Pl 276.



The reproduction of the species takes place wherever the locality suits its habits, the nest being mostly placed on some few stunted remains of last year's rushes, &c., and generally securely located in order to make the approach of men or beast difficult on account of the nature of the ground. Where the remains of rushes of the former year are wanting, the nest is placed among fresh rushes on the surface of the water, so that it floats on its surface, but so surrounded with reeds and leaves that it cannot well be carried away by the stream; the nest itself is formed of a large mass of decayed roots, flags, and rushes, and generally contains from five to six eggs, in size and colour as represented in our plate; this egg may easily be distinguished from that of other Grebes by its more lengthened form.

The present species measures ten inches in length; the beak one inch; the wing four inches and a quarter; the tarsus one inch three lines. The legs and feet of this species are very large in proportion to the size of the bird, and placed so very much towards the hinder part of the body, that walking is one of the most difficult manœuvres for it to perform.

The adult Little Grebe in summer has the crown of the head and the nape deep sooty black; the cheeks, sides, and front part of the neck bright chestnut; the upper parts of the plumage dark olivaceous brown; the rump redder brown; the primary quills brownish ash; the secondaries white at their base and inner webs; the under parts are dusky tinged with cinereous, and darkest on the breast, sides, and vent; the thighs are reddish; the beak is black; the tip, base, and lore yellowish; eyes burnt umber; the legs externally olivaceous dusky, and internally livid flesh-colour.

The young of the year have the top of the head, nape, and all the upper parts brown, mixed with ash-colour and tinged with rufous; the throat is white; the sides of the neck are reddish ash-colour, as well as the front of the neck; upper part of the breast and flanks the same but lighter coloured; the belly and vent white; the beak is brownish horn-colour, with yellowish white at the tip, base, and lore; eyes brown.

The adult in winter plumage much resemble the young above described.

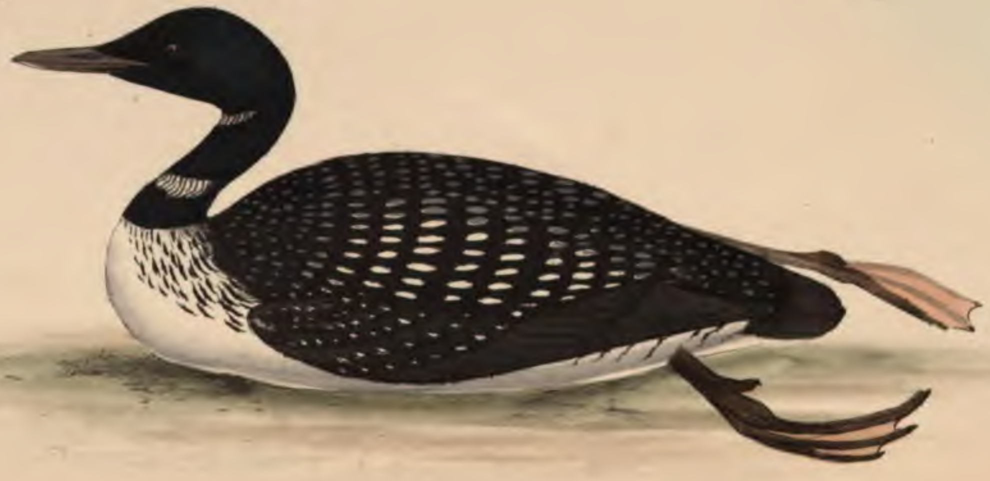
The egg figured 276 is that of the Little Grebe.

274.

275.

276.

Pl 277



NATATORES. *COLYMBIDÆ.*

PLATE CCLXXVII.

NORTHERN DIVER.

COLYMBUS GLACIALIS.

The Northern Diver is a constant winter visitant on the northern coast of England, but very few adult birds are met with in comparison to the young and immature. The countries frequented by this species during the summer months are the most northern parts both of the Old and New World, namely, Greenland, Finland, the northern parts of European and Asiatic Russia, Kamtschatka, Amalaschka, and all the adjoining islands: including Iceland, the Orkneys, and Hebrides. On the approach of winter, the usual inducement forces the Northern Diver, like many other birds of passage, to journey southward, during which time it is occasionally found in Norway, Sweden, Denmark, and Scotland.

The Dutch and French coasts are not much frequented by these birds. In North America this species is often seen, and goes as far south to pass the winter as the United States.

We took our drawing from a beautiful specimen that was killed near the falls of Niagara, and its plumage was in a high state of perfection.

The sea appears to be the locality preferred by the present species, although it retires to inland lakes and rivers for the purposes of breeding; and during its migration, it is not unfrequently met with on large rivers of the European continent, having been captured on the Rhine and the Elbe. When we speak of the sea as the locality where the Northern Diver is most likely to be met with, we must add that this bird is not usually found on water, the depth of which exceeds fifteen fathoms, and thus its locality must necessarily be near the shore.

The general appearance of the Northern Diver is conspicuous, and peculiarly handsome when in the act of swimming.

On land the attitudes of the bird are awkward in consequence of the backward position of the legs, by which it is rendered incapable of walking or even standing up in a comfortable position. The time that the present species can remain under the water when in pursuit of its food is truly surprising, and is reported to be as long as three minutes and a half, and when pursued, the bird manages with ease to swim below the surface of the water for a couple of hundred yards.

The flight of the Northern Diver is neither very graceful nor very rapid; it requires a run or start to enable the bird to rise from the water, which it does in a slanting direction accompanied by the frequent repetition of its call-note. When a party of six or eight of these birds rise together, they mount high in the air, and follow one another in a line.

The present species is the most shy of its family: it is constantly on the watch, and consequently very difficult to approach within gunshot. During the breeding time it has been stated that this bird is not only more courageous, but even attempts to dispute possession of its place with an intruder; and it is a proper place to add here, that a wounded bird of the present species must be very carefully handled, as the blows of its sharp edged and pointed beak are by no means contemptible, and are very likely to prove of consequence.

The call-note of the Northern Diver is peculiar, loud, and very discordant, and resembles howling or whining. The word *who, who!* or *whee, whee!* frequently repeated, approaches nearest to a description, although it is not unfrequently accompanied by other sounds of varied character.

The food of this bird consists principally of fish, which it catches by diving; the young birds consume insects and their larvæ, frogs and frog spawn. The fish which the adult Divers consume entire, measure on an average from eight to twelve inches; larger sized fish they are obliged to divide. The large number of herrings that abound in some parts of our northern coast, induce this Diver to pass much of its winter time in some certain spots; of these, the greater number are, however, young birds. The fishermen of all countries where the Northern Diver sojourns, are jealous of it on account of its destroying such large numbers of fish.

The flesh of the Northern Diver is not fit for the table of a civilised person, as it is inveterately flavoured with train oil, and the smell of this disgusting fat is so strong even in the skin of the bird, that a bird-stuffer finds it a very difficult matter to get rid of its perfume after having handled a bird for the purpose of preserving. Soap and

PLATE CCLXXVIII.

BLACK-THROATED DIVER.

COLYMBUS ARCTICUS.

The Black-throated Diver is an occasional winter visitant on the coast of Great Britain, as well as on some of our inland lakes and rivers; but it is less frequently met with than the Northern Diver, and does not extend so far south: however, Mr. Selby having seen a pair on Loch Awe in the month of June, is induced to think that some few remain to breed in our latitudes.

The Black-throated Diver does not extend so far north as the Northern Diver, and seems also to belong more to the shores of the eastern countries. In Greenland and Iceland, this bird is not located; in Norway it is of rare occurrence, but Finnland seems to produce more than any other region; also Sweden, northern Russia and Siberia, as far as Kamtschatka are its chosen countries, from whence it is known to extend as far as Japan.

Although an inhabitant of North America, this species seldom occurs in the United States. In Holland and France it is a rare winter visitant, and still more so in Italy.

It is remarked that this bird is nowhere so numerous as the foregoing species, but we may account for this supposition in some measure, as it seems by far less sociable in its habits.

The manners and general appearance of the Black-throated Diver resemble those of the former so closely, that there is great difficulty in distinguishing them from each other, unless the bird can be sufficiently approached to see the colouring of the head and neck, and to judge of its size, the present being considerably less than the former.

The powers of swimming and diving in this species, are equal to those of the Northern Diver, and its flight the same, notwithstanding that its wings are shorter in proportion, when compared with the bulky size of the bird.

Their flight is performed with very quick motion of the wings, which are extended at full length; and thus its course is rapid and long sustained. On land the present species is in a great measure helpless, like the rest of its family.

The food of the bird here described, consists of fish, frogs, aquatic insects, and vegetables, and consequently its flesh is only fit for the stomach of a train oil digestor of the north.

The present species breeds generally at a distance from the sea, on the edge of some lake or fresh-water river; the nest is composed of a few dried leaves and stalks of aquatic herbage, which are carelessly laid in a place trodden flat for the purpose.

The eggs are two in number, according to the statement of undoubted authorities, and are said to resemble those of the Northern Diver in every respect, but that they are smaller in proportion to the size of the bird. We hope to include a representation of the egg in a future number, having at present no specimen on which we can sufficiently rely.

The Black-throated Diver measures about twenty-two inches in length; the beak from the forehead two inches two lines; the wing from the carpus to the tip twelve inches; the tarsus two inches and a half; the outer toe three inches and three quarters.

The plumage, &c., of the adult bird are as follows: the upper part of the head, the nape and back of the neck are cinereous dusky; the chin is black as well as the throat and forepart of the neck; the base part of the front of the neck reflects purple; the throat is ornamented by a white band, barred with black; the sides of the neck, from the ear-coverts to the base, are covered with black and white feathers in waving lines; the root of the neck is green, which colour divides the plumage of the back from the dusky colouring. The entire upper plumage of back, wings, and tail is black; the tippet is ornamented with rows of white spots; the scapulars the same, having two oval white spots on each feather near the tip; the shafts of these feathers are all black; the wing coverts are ornamented all over with smaller white spots, disposed in rows, caused by a white triangular mark on the tip of each feather; the quills are dusky. The sides of the upper part of the breast are marked by black and white streaks, which form waving lines; all the under parts are white; the beak and legs are black, the webs pale dusky; the eyes are red.

The young bird has the throat and underparts white; the back deep grey, intermixed with clove-brown, the plumage approaches the adult nearer at each successive moult, and the full plumage is attained in three years.

PLATE CCLXXIX.

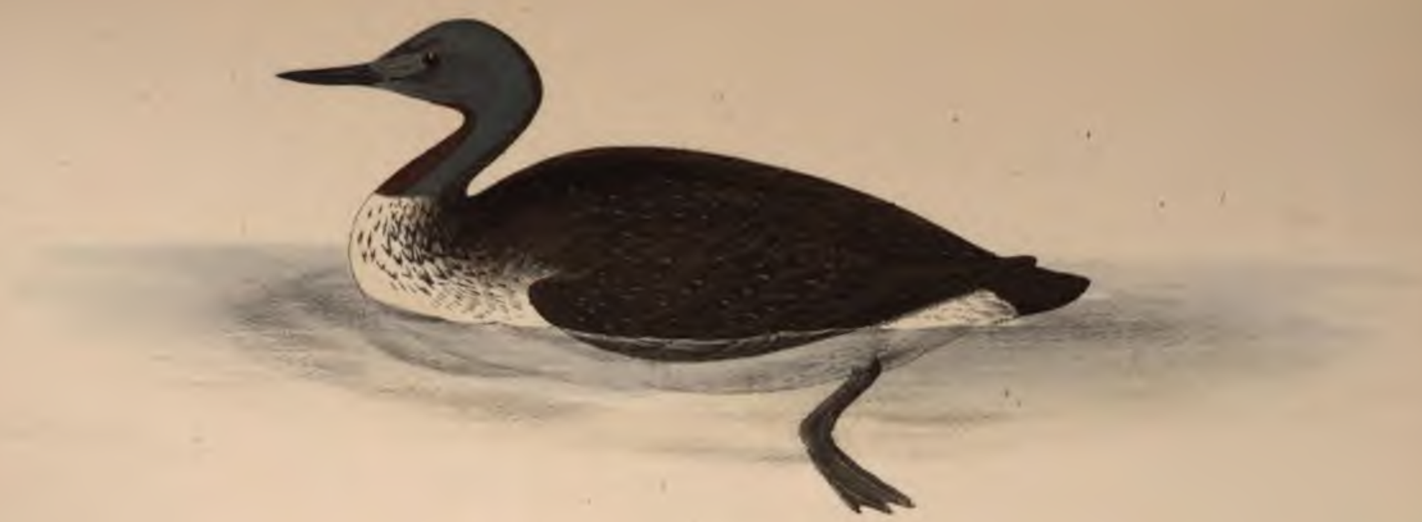
RED-THROATED DIVER.

COLYMBUS SEPTENTRIONALIS.

The Red-throated Diver is a periodical visitant in Great Britain, and was formerly considered to be identical with the foregoing, but the shape of the beak, when the two are compared together, its smaller dimensions in general, and other specific distinctions, sufficiently separate it from the former. This bird is not only found more southward than the two foregoing just described, but plentiful enough to be looked upon as an unwelcome intruder among the sprats on the river Thames, and has therefore been called the Sprat-loon by fishermen. From the mouth of the Thames these birds sometimes penetrate a considerable distance inland, by which chance we obtained a young specimen as high up as Chertsey weir in the autumn of 1838.

The geographical distribution of the Red-throated Diver extends over many parts of Europe, Asia, and North America; including Greenland, Iceland, the Ferro and

Pl. 279.



Shetland Isles, the Orkneys and Hebrides, Scandinavia, Finland, Russia, and Siberia; it is also found throughout Kamtschatka and North America, and during the winter months it visits the northern provinces of the United States. It also occurs in Japan, Tartary, on the Caspian, the Sea of Asof, and the Black Sea, and even in Greece. The greater number are found in the north eastern countries. From the Icy Sea, Finland, Sweden and Norway, it migrates annually to winter in the Baltic, on the coasts of Denmark, Great Britain, Holland, France, and most of the continental shores, lakes, and rivers, where it arrives in October or November, and early in March it returns northward to breed, with the exception of some pairs that remain on our northern shores as well as in some other countries of similar latitudes.

The nest is mostly placed close to the water's edge, so as to suit the convenience of the bird, and avoid crossing the land when going on or off the nest. The nest itself is placed on the ground and lined with moss, aquatic decayed herbage and feathers; the eggs are two in number, in size and colour as represented in our plate.

The open sea does not suit the habits of this bird so much as the vicinity of the coast, the borders of lakes, and the mouths of rivers: it makes no particular choice between mountainous and flat countries, but solitary spots are preferred.

In its habits, such as flying, swimming, diving, and its movements on dry land, the Red-throated Diver resembles both the species beforementioned; it is also less shy, and will frequently take wing when closely pursued.

The call note of this bird sounds like *ah, auw!* or *eck, eck!* which it frequently repeats when closely pursued.

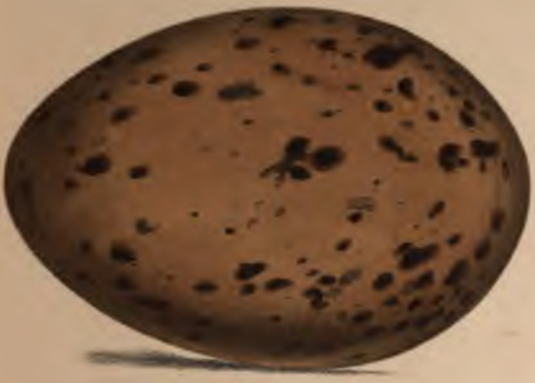
Its food consists of fish, frogs and their spawn, and vegetable remains have also been found in its stomach.

The Red-throated Diver meaures about twenty six inches; its beak one inch eleven lines; the tarsus two inches and three quarters; the wing eleven inches and a quarter.

The adult bird, in the spring of the year, has the beak bluish black; its upper mandible is straight, the lower mandible ascending with a long angle; the sides of the head, chin, and sides of the neck are grey; the crown of the head dark grey; the nape and hinder part of the neck dark grey edged with white. The forepart of the neck has a large patch of reddish brown; the lower part of the neck and sides of the breast are white, with the centres of the feathers dark grey. The upper plumage is clove-brown with a tinge of brown pink; the under plumage white; the flanks clove-brown. The legs are cinereous green; the inside livid purplish white, the webs the same; the eyes are red.

The young bird has the crown, nape and back part of the neck grey, finely streaked with pearl white; the chin, throat, and under parts are white; the flanks are marked with arrow-shaped grey spots. Upper plumage dark grey approaching to brown; the edges of the feathers pale grey near the tips; quills dusky. The beak is grey tinged with flesh-red. The legs are greyish green outside, much paler on the inner side. Eyes reddish brown.

The egg figured 279 is that of the Red-throated Diver.



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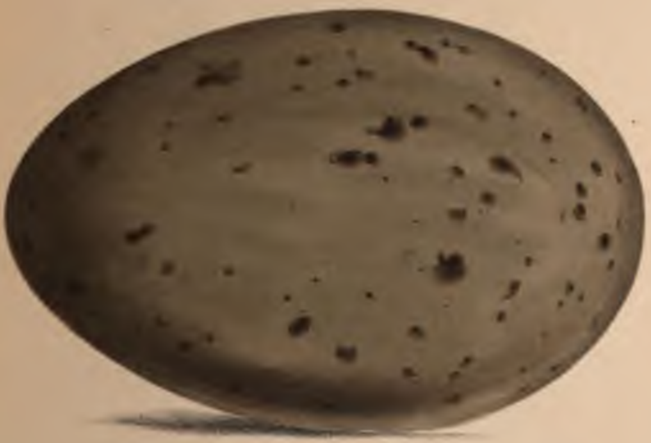

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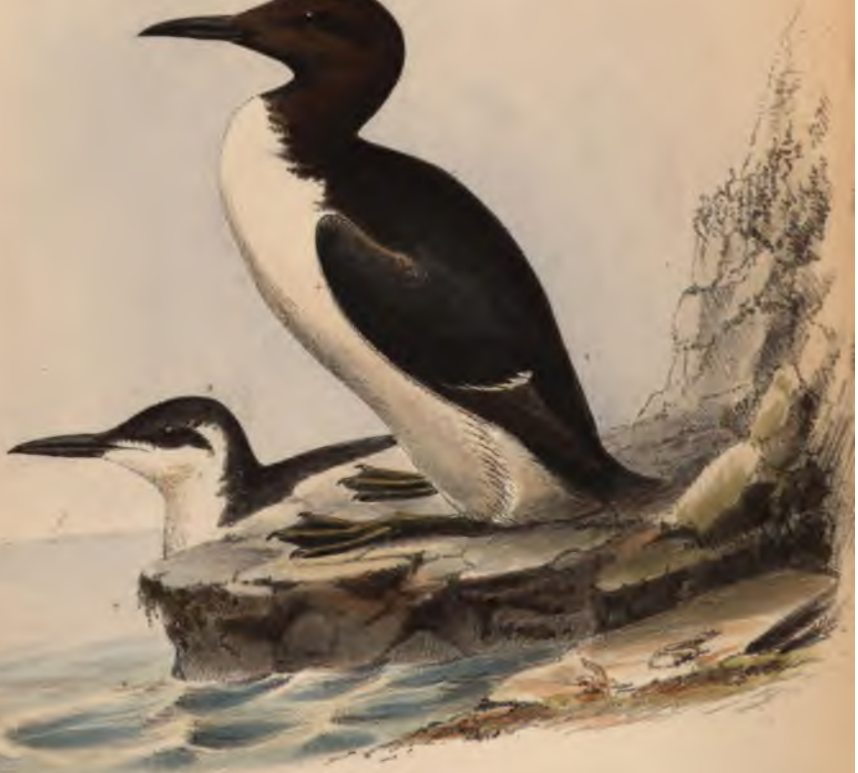


NATATORES. *ALCADÆ.*

PLATE CCLXXX.

FOOLISH GUILLEMOT.

URIA TROILE.

THE Foolish Guillemot is a periodical visitant in this country. Wherever the coast is rocky and shelving it may be found breeding in great numbers in the summer months, and during the winter the birds that breed in more northern latitudes come to us for the purpose of passing the winter in our comparatively mild climate; it is, consequently, both a summer and a winter visitant, according to circumstances.

The present species is very widely distributed, we may say over all northern countries as high as the seventieth degree. In Europe it descends as far south as the northern coast of France, it is common all along the coast of Norway, the Hebrides, Orkney, Shetland, and Ferro isles, and the southern coast of Iceland. In Greenland the species is not met with.

During the inclement season the Foolish Guillemot is not frequent in the Baltic, but more so between Heligoland and the mouth of the Elbe, and along the Dutch coast; some instances are also on record of its having occurred on the lakes in Switzerland. The sea is mostly its favourite place of resort, for the bird appears to be very restless whenever it loses sight of that element, either by being driven inland by an enemy, or located on fresh-water in a state of captivity.

The Foolish Guillemot has obtained its name from the position it assumes at the breeding season, for the bird remains squatted, as it were, on the shelf of a rock, watching unconcerned the approach of a boat or other enemy, until it is approached near enough to be knocked down with a stick.

In places where innumerable flocks of Guillemots and many other sea-birds breed, numbers sit in rows, one beside the other, and when one flies away all successively take wing in such regular order that when seen at a certain distance, these white-bellied birds appear as if they were actually strung together; they never take wing in a body, but always one after another. Again, when they can be seen sitting in a long string on the edge of some cliff, their behaviour is most amusing, for the birds keep complimenting each other right and left where they sit, and also welcome the new comers, by bowing to them, and uttering their call-notes, which sound like the words *ærrrrrr*, *merrrrrr*, *girrrrrr!* &c.

This bird is very sociable, not only among its own species, but towards every branch of its family, as well as Sea Gulls: nevertheless, each species keeps exclusively to its own shelf or ridge.

The reproduction of this species is carried on with the least care imaginable beyond the selection of a spot on the cliff. The one single egg is deposited on the bare rock, and the shape of the egg, which is very tapering, prevents it from rolling off into the sea; for, when moved by the wind, or other circumstances, it only rolls round in its own circle, without changing its first immediate situation.

The food of the present species is small fish, small shell-fish, marine insects, and bivalve mollusca.

In confinement it is not possible to keep the Foolish Guillemot, since it cannot be well supplied with sea-water; and in fresh-water it rarely remains longer than a couple of days alive.

In the more northern countries, where an oily flavour is rather prized than otherwise, the present species supplies the inhabitants plentifully with food, not only by its flesh, but by its eggs also. In our more refined latitudes the eggs are only valued for collections; neither the birds nor the eggs being at all made use of for food.

The Foolish Guillemot measures seventeen inches and three-quarters in length; its beak one inch eleven lines; the tarsus one inch seven lines; the wing, from the carpus to the tip, six inches two lines.

The plumage of the adult bird in the breeding season is as follows:—the head and upper part of the neck are brownish-black, and the division of the feathers from the eye towards the nape forms a streak in the colouring; the feathers of the head and neck are very soft and close; the back is cinereous black, intermixed with brown. The tips of the secondaries are white; the breast, belly, and vent, white; the flanks streaked with blackish ash; the legs are brownish-black; the beak is black outside and orange-yellow inside: the eyes are brown.

In winter the throat and sides of the neck are white, with a dark band behind the eye; the top of the head, nape, and hinder part of the neck, are cinereous black; the rest as in the spring.

The egg figured 280 is that of the Foolish Guillemot.

Pl. 281.

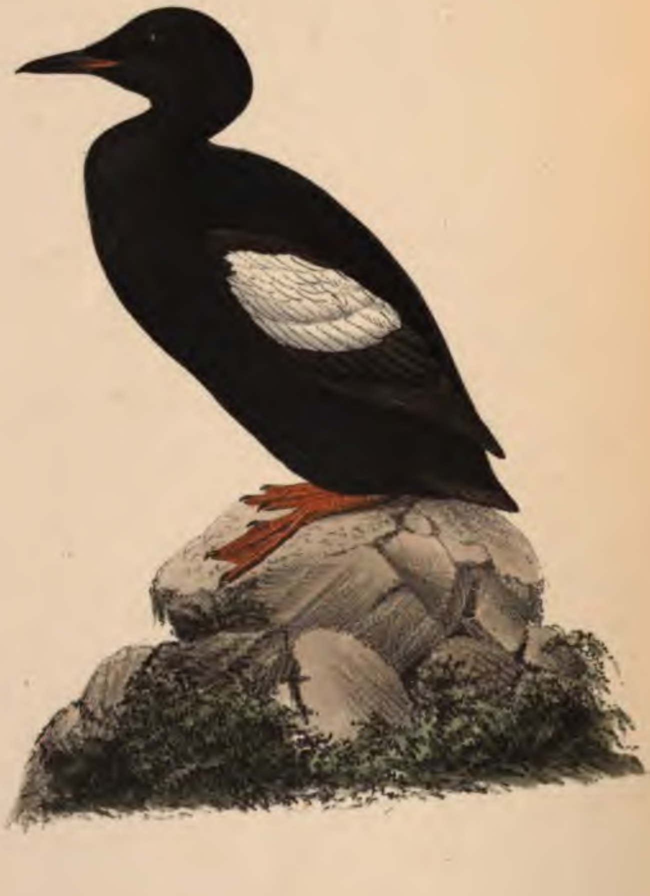


PLATE CCLXXXI.

BLACK GUILLEMOT.

URIA GRYLLE.

The Black Guillemot is a constant resident on the northern islands of Scotland, namely, the Hebrides and Orkney Islands: during the winter it is also found all along our coasts, being a constant inhabitant of the sea.

Its geographical distribution extends over the greater part of the northern coasts of Europe, Asia, and America to within the arctic circle. In Baffin's Bay and the west coast of Greenland this species appears to be most numerous, but nowhere to such an extent as the foregoing species. On the coast of Labrador and Hudson's Bay it is equally common, and migrates from thence to the United States of America in the winter season. In Holland, France, and the German Ocean it is not rare; this bird may consequently be considered to extend over most of the northern countries of Europe.

The general appearance of the Black Guillemot is by far more comely than that of the foregoing species; its attitudes are less inelegant, and its manners more engaging. When these birds can be seen perched in small groups on the grey-coloured shelves of a rock, with their dark garb, white wing-coverts, and bright red legs and feet, they enhance considerably the beauty of the romantic scenery. On the approach of a boat this bird frequently opens its black beak and shows the orange-coloured inside with the gape and tongue, while in the exercise of its voice.

This species is very expert in swimming and diving, and swims below the surface of the water with its wings open, as if flying; it does not continue so long under water as the Foolish Guillemot, and thus soon reappears. Its flight is performed with more ease than that of the last-mentioned species; but it does not fly much by choice, and seldom at a great elevation, particularly in the locality it frequents.

The disposition of the Black Guillemot is sociable and by no means shy; it associates with most sea-birds that inhabit the same locality; and in its breeding places it is easily to be captured either by killing it with a stone or a stick, and may even be taken off its eggs with the hand.

In confinement it soon becomes tame, but, owing to the impracticability of supplying it with sea-water, it does not exist long.

The call-note of this species is particularly soft for a bird of its size, and sounds more like that of a mouse, a bat, or the meadow-pipit, in uttering which note it opens its beak very wide.

The food on which the Black Guillemot principally exists, is small crustacea, marine insects and worms, but rarely small fish; it obtains all this by diving and capturing it from the bottom of the sea; ten fathoms is the fullest extent of depth that it hunts over, and its descent and ascent must consequently be performed with great swiftness, since the extent of its time under water does not appear to exceed two minutes.

The greater numbers of the Black Guillemot are reproduced in the most northern parts to which its migration extends; but many pairs breed as far south as our northern islands, and also in Denmark.

Small parties are always found to occupy a certain space on the rocky shelves by the sea-side for this purpose, and invariably select the lowest situations about the rocky shores, where myriads of other sea-birds congregate for the same purpose.

In consequence of the amiable disposition of the present species towards its mate, and the great attachment shown towards each other, this bird is frequently called the Pigeon of the North. About the middle of March the birds pair, and by the beginning of June, two eggs, as represented in our Plate, are found lying on the bare ground. Twenty-four days after, the young are hatched, and tended by both parents until they are able to fly and obtain food for themselves by diving.

The Black Guillemot measures thirteen inches and a half in length; the beak, one inch, two lines; the tarsus, the same length; the wing, six inches seven lines, from the carpus to the tip.

The spring plumage of the adult is a uniform brownish-black, with exception of part of the wing-coverts, and a small patch above the shoulder of the wing, which are pure white; the legs and feet, as also the entire inside of the beak and throat, are orange-red; the beak is black, the eyes brown.

The winter plumage is the same as above-described about the upper part, but the sides of the face and all the under parts are white.

The young of the year have the feathers of the head and back edged with white, and the white wing-coverts edged with dusky and ash-colour. The sides of the head, neck, and breast, are edged with ash-colour.

The egg figured 281 is that of the Black Guillemot.

Pl. 282.

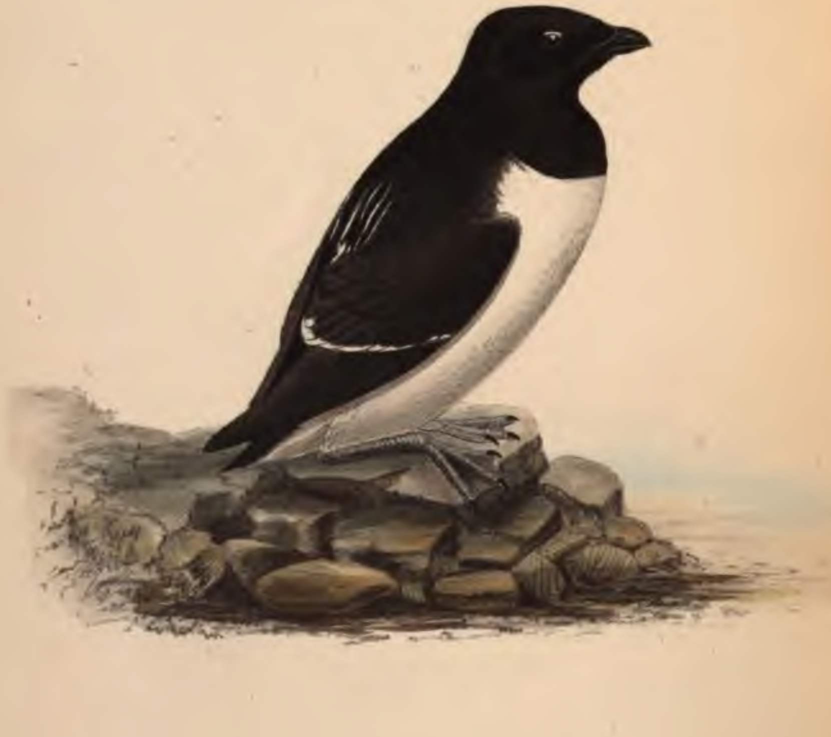


PLATE CCLXXXII.

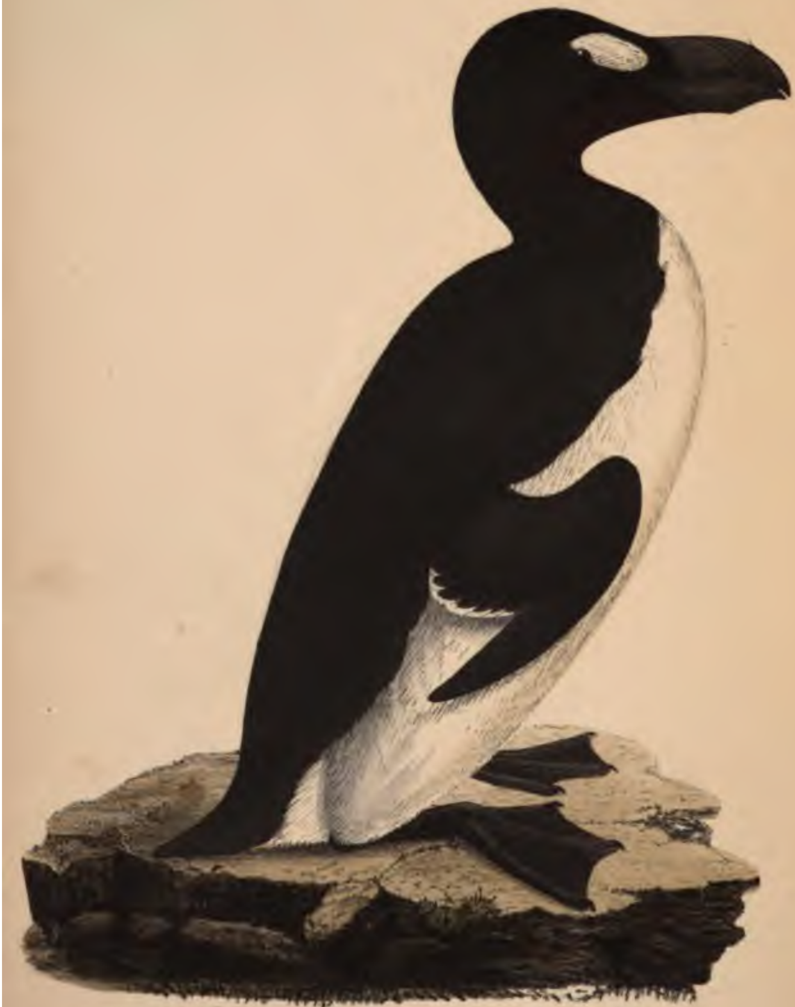
LITTLE AUK.

MERGULUS MELANOLEUCOS.

The Little Auk or Rotche, as it is called by the northern navigators, is a winter visitant in Great Britain, occurring more or less frequently according as the weather happens to be more or less stormy. In the northern seas this little black and white bird abounds in the highest latitudes that have been visited by enterprising travellers in search of the north-west passage, with the exception of some longitudinal degrees between the western coast of America, and eastern coast of Asia.

In Spitzbergen it is common, but unknown on the coast of Lapland; it is rare on the Norwegian coast; on the eastern and western coast of Greenland it is in great numbers, but only a winter visitant on the southern. Also on the northern coast of Iceland, the Little Auk is numerous during the summer months, while it only

Pl.283.



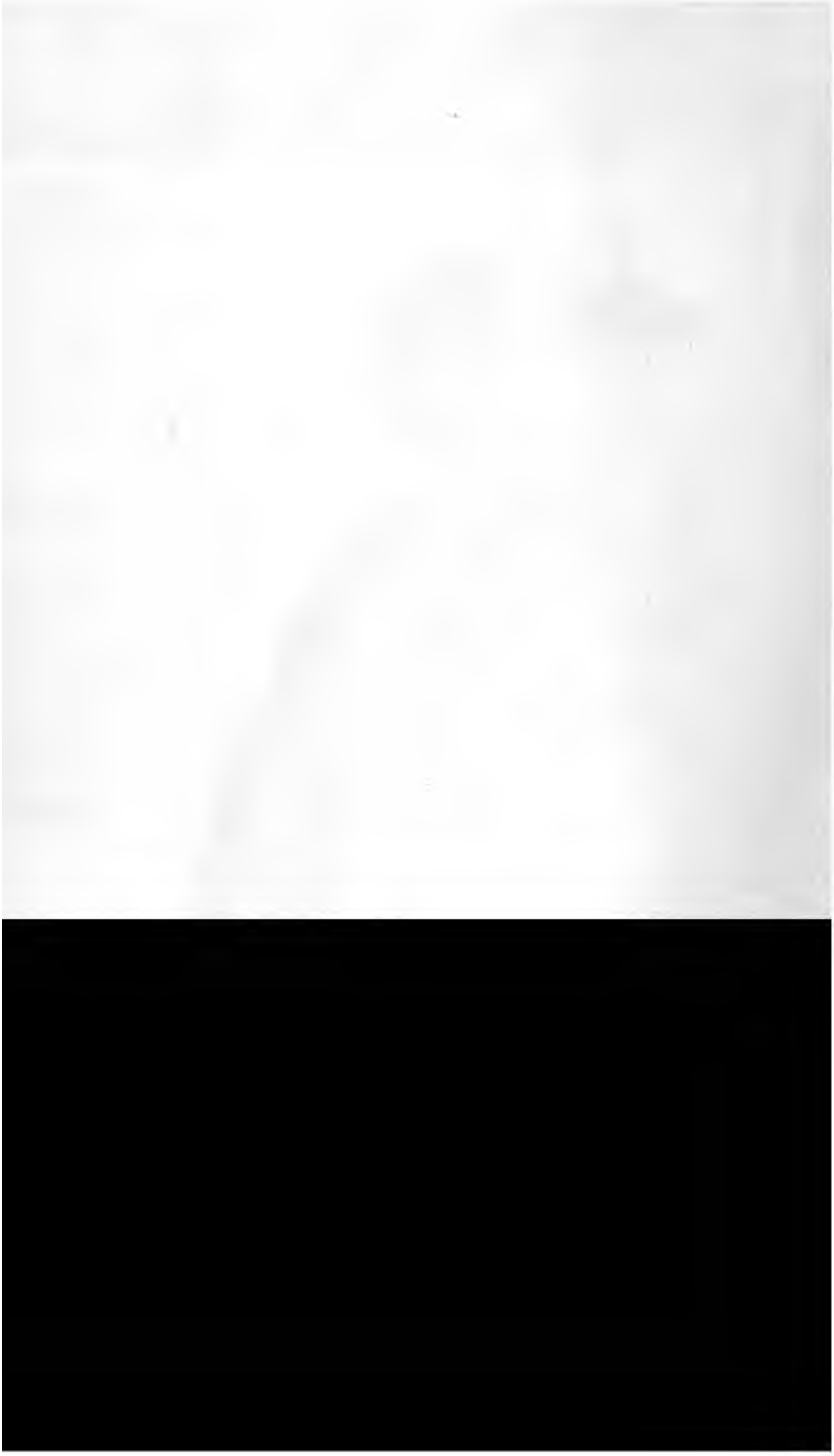


PLATE CCLXXXIII.

GREAT AUK.

ALCA IMPENNIS.

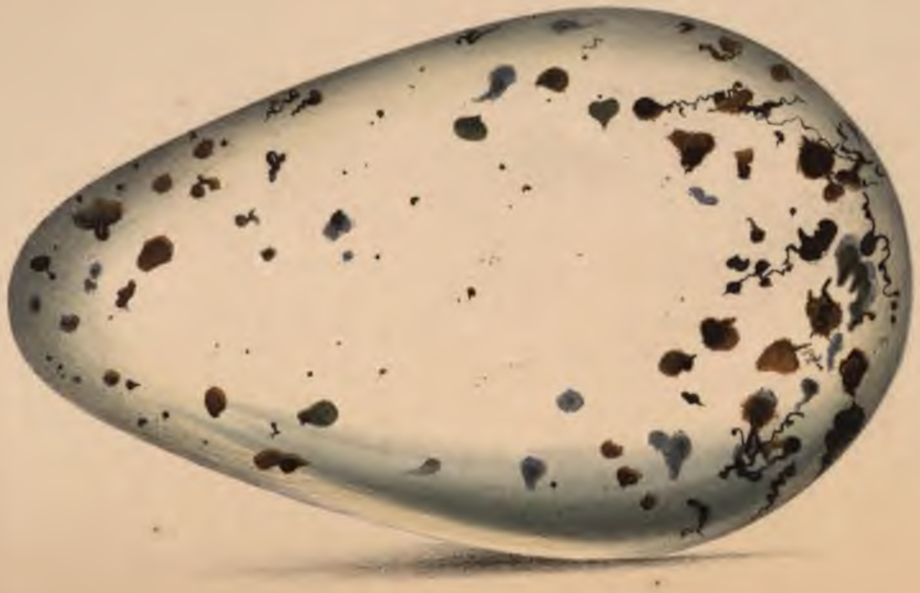
The Great Auk is considered a rare species in British Ornithology, inasmuch as its capture is confined to but five or six specimens, most of which were obtained near the Orkneys, and islands of the Hebrides.

The geographical distribution of this bird extends chiefly over the northern shores of Europe and America; about Iceland and Greenland, it is more frequently met with than elsewhere, but still in very small numbers,—and the localities chiefly inhabited by it, are the isolated low rocks that here and there occur in the sea, at a considerable distance from the shore, or that are only visible at low-water, which accounts for its rare appearance on any coast. A single specimen is recorded to have been seen on the coast of Labrador, and several about Newfoundland. It is probable that specimens of the Great Auk, and especially of its eggs, will at all times be scarce, since the localities in which they abound are very difficult of approach, and generally avoided by mariners; but we cannot believe, as some authorities suppose, that the species is either becoming extinct, or even diminished in number, because it is not now so frequently obtained as formerly. Civilization may drive them further from the vicinity of the British shores, but can hardly disturb them from the possession of the barren and lonely rocks, in which they most delight. Besides, the spots most frequented by the Auk, are those least coveted by man: being usually situated in the midst of surf and breakers, and such as the present advanced state of navigation enables seamen, and even fishermen, to avoid.

This species, possessing no available powers of flight, not even sufficient to raise itself from the ground, cannot be supposed to migrate, or change its locality on the wing. Its occasional appearance in unusual spots can only be attributed to its great ability in swimming, or to its having been carried by drift ice beyond its usual latitude.

The Great Auk is altogether a sea-bird, and resorts only to the land, if the low rocks before mentioned can be so called, when fatigued, or during the breeding-season. The rocks selected as breeding-stations are those that are situated in the midst of the heaviest surf, and it is by the aid afforded by the waves that this creature is enabled to mount upon them, being destitute of the powers of flight; and on such shelves, or rocks, a party of them may occasionally be seen sitting side by side, and generally secure from molestation.

The size of the Great Auk, and the conspicuous white patch between the beak and the eye are unerring marks of distinction, by which it can at all times be easily recognised when it shows itself on land; its position under such circumstances is mostly as represented in our plate; its progress on shore is slow and careful, and in the action of walking it is aided in its progress by flapping its insignificant wings.



283.

Although entirely unable to fly, the Great Auk is gifted with powers of swimming on and below the surface of the water at an incredible speed, fully proving the care of Providence in providing for the safety of its creatures.

Although the bird in question lives in retired places, it is not shy or easily alarmed; but when surprised on land it makes no attempt to escape, and may either be taken alive or knocked down with a stick. Sometimes, however, it defends itself with its powerful beak, by biting or pinching very severely.

The food of the Great Auk is said to consist in fish of the size of herrings; little is, however, known on this subject, but we may be quite sure that the strength, size, and form of its beak, are not given to this bird for feeding on soft substances only.

In the month of June the female deposits her solitary egg on the bare ground, and both birds sit on it by turns.

The Great Auk measures thirty-two inches in length; the beak from the forehead, three inches and a half; tarsus, two inches five lines; the wing, from the carpal joint to the top, seven inches.

The plumage in summer is as follows: the head, neck, and all the upper parts black, with the exception of an oval white patch between the eye and the beak, and the white tips of the secondary feathers of the wings. The under plumage is entirely white; the eyes are dusky brown; the beak, which is much grooved, and the legs and feet are black.

In the winter, the cheeks, throat, forepart and sides of the neck are white.

The egg figured 283 is that of the Great Auk.

PLATE CCLXXXIV.

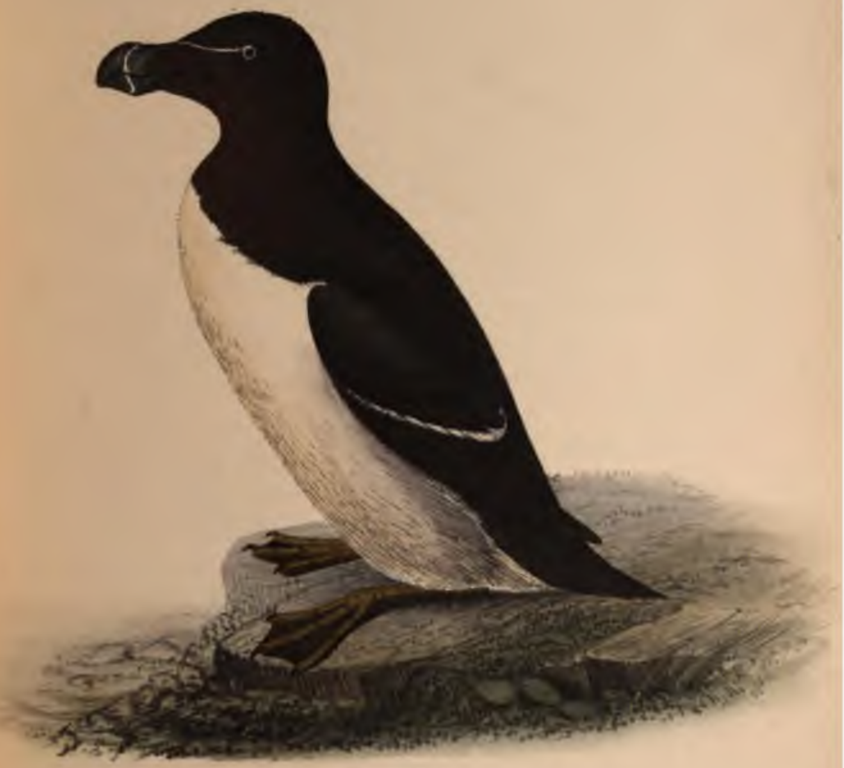
RAZOR BILL.

ALCA TORDA.

The Razor Bill is a regular summer visitant along the coast of Great Britain, in localities suitable to its habits.

The countries chiefly inhabited by this species are situated between the sixty-second and seventy-second degrees of latitude, and it is equally plentiful in Europe, Asia, and America. On the coasts of the Icy Sea, as far as Kamtschatka, and also on the frozen coast of America, the Razor Bill is numerous; equally so on the coast of Canada, Labrador, Greenland, and upper Norway. Great numbers frequent the entire coast of Iceland. This bird also frequents the shores of the Baltic, Heligoland, the coast of Prussia, Pommerania, Muklenburg, and Holstein. In Holland it is not numerous, but during its wanderings it visits the coasts of France, Spain, and the Mediterranean.

The Razor-bill is a migratory species, and begins its southern course by the end of September; it continues to travel through November and December, according to



the earlier or later setting in of the winter; and in March or April the bird returns northward again to its breeding localities. During these migrations, an interesting circumstance may be observed, namely, that when the several divisions or groups of a flock descend upon the sea to rest themselves, the parties that are behind alight some distance in advance of those that first settled, so that when the first arrived parties have recruited their strength, and taken wing again, the later-arrived groups having alighted so much in advance, have had time to rest themselves also, and are prepared in their turn to follow in the train of their former leaders, as soon as these have passed over.

The Razor-bill always follows the course of the water, and flies close to its surface, unless when obliged to raise itself for the purpose of alighting on the shelf of a rock. Flocks of the present species extend over a great space, on account of the birds flying individually very wide apart. In every way the present species is a sea-bird; its usual abode is the open sea, many miles distant from any shore, unless when it occasionally rests upon the lower shelf of some rock, or resorts to the higher ones, for the purposes of breeding and depositing its eggs in safety; very stormy weather only drives it into bays and the shelter of high rocky shores; but on inland rivers and freshwater lakes it does not make its appearance.

The flight of the Razor-bill is performed with a rapid motion of the wings. Its gait on shore is very unsteady and slow; if pursued it quickens its pace, balancing itself by means of its expanded wings. Swimming and diving it performs with great ability.

The call-note of this bird sounds like the word *arrr*, or *orrr*, somewhat resembling the sound of a person groaning from pain.

The food of the Razor-bill is fish, such as young herrings, sprats, &c., and crustacea, the latter of which it obtains by diving to a considerable depth.

The breeding places of the Razor-bill are in the before enumerated northern countries, including Great Britain; and the localities are invariably the most perpendicular rocks on the coast, facing the sea. In the month of April, the birds choose a spot in which to deposit their single egg, which is laid in a slight hollow on the bare rock, and, if possible, under cover of some overhanging stone or shelf. In many instances the egg is broken, or the sitting-bird killed by the falling of stones from above, which are thrown down by strong winds, or by the innumerable sea-birds that frequent the upper shelves or ledges.

The parent birds are very much attached to their young, which they feed with small fishes. In July the young Razor-bills may be seen on the rocks, and about the end of that month they are able to come down to the sea, when they immediately shift for themselves. The manner in which the young birds descend to the surface of the water is peculiar, and consequently a very anxious time for the parent birds: when the young are ready to enter upon the business of their existence, they waddle to the edge of the rock, and are instructed, apparently, by their parents, to take a leap forward in order to clear any impediment in their descent; if they reach the water uninjured, they swim immediately about, and very soon dive as if they had been accustomed to do so; but it also frequently happens that they are dashed against a projection of the rock, or are killed by falling upon a stone, under which circumstances the parent birds have been seen to swim about in great desperation. Many young birds of this kind become also, while still upon the rocks, the prey of eagles and hawks.

The Razor-bill measures seventeen inches in length, its beak from the forehead one inch and a half; the tarsus one inch and a quarter; the wing from the carpus to the tip, seven inches and a half.

The plumage of the adult male and female are alike; the head, neck, back, wings, and tail are black; the tips of the secondary quill-feathers are white, and all the under parts pure white; the beak is black, with three transverse grooves, and one white streak on the upper mandible; the lower mandible has two transverse grooves and one white line. From the top of the upper mandible runs a perfect white streak to each eye; the eyes are burnt umber brown; the legs, feet, and webs are sooty black.

Young birds of the year have their beaks smooth, without grooves or white lines, and the streaks from the beak to the eyes are intermixed with black; the chin, cheeks, sides, and front of the neck are white; the rest of the plumage as in the adult.

The egg figured 284 is that of the Razor-bill.

NATATORES. *ALCADÆ.*

PLATE CCLXXXV.

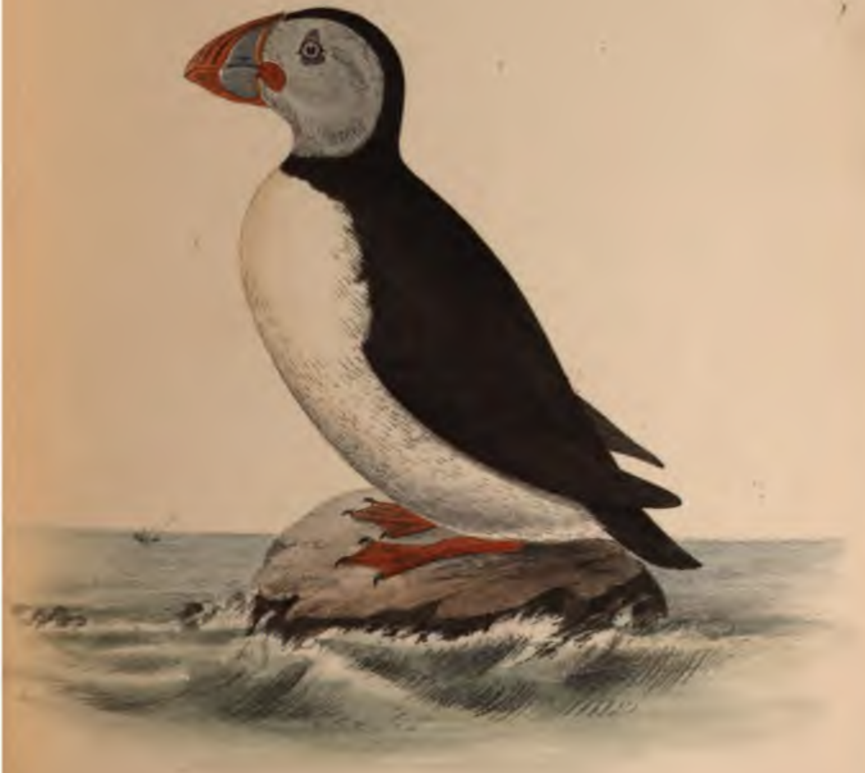
PUFFIN.

FRATERCULA ARCTICA.

The Puffin is a summer visitant in Great Britain, arriving in April, and departing in August, or early in September. This species extends, during the summer months, over most northern countries of Europe, Asia, and America. In the Old World it goes as high north as Spitzbergen, Lapland, Norway, and Iceland; and in the New World, to Baffin's Bay, Hudson's Bay, Labrador, and the northern parts of Greenland, where very large numbers breed. The winter quarters of the Puffin are south of us, on the open sea, at a great distance from the land; this species is so entirely a sea-bird, that its appearance on land only takes place during the breeding season; and it remains there only long enough to fulfil its parental duties.

The general appearance of the Puffin is so peculiarly its own, in consequence of the shape of its beak, that it cannot possibly be mistaken for any other bird by the most common observer. Its general position on land is as represented in our plate; it walks and moves about in a manner much more alert than most other auks, but when at rest it supports itself also on the tarsi and its hinder parts; it does not sit still for any length of time, but is very restless, con-

Pl. 285.



tinually moving about, and looking around, by turning its head in all directions.

In their breeding-places, namely the shelves of rocks, great numbers are frequently to be seen sitting in long rows on the ledges, looking towards the sea, during which time they keep bowing towards each other, and making all sorts of amusing movements. The powers of flight are considerable in this species; it has consequently no occasion to climb the rocks at any time; when flying, it proceeds by a very quick motion of the wings, which are opened to their full extent; and, when a flock is on the wing, they resemble a swarm of bees raising and lowering themselves at pleasure: at other times they fly in a straight direction, near the surface of the water, and continue this for miles without apparent exertion. Respecting their powers of swimming and diving, nothing need be said, as the usual abode and occupation of this species proves the fact of its possessing those necessary capacities.

The call-note of the Puffin sounds like a low and long drawn *orrr, orrr!*

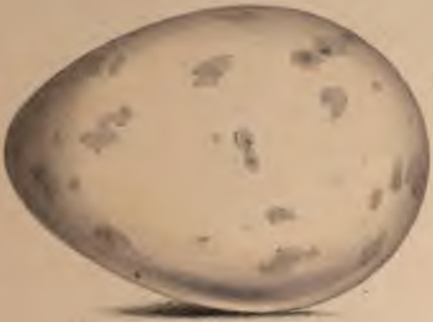
The place of breeding in this species is sufficiently explained in regard to the locality, namely, the rocky and hilly sea-coast; the bird forms a hole, or takes forcible possession of a rabbit's burrow, at the end of which it deposits its single egg on the bare ground, without any nesting materials; the highest and most inaccessible tops of perpendicular rocks, where the surface is covered with verdure, are in some parts taken possession of by the Puffins, in which they dig holes in the surface for the reception of the egg; and the number of these birds is so great, that the ground seems literally covered with them, and appears as if snow-clad. The parent birds are very careful of their egg, and instances are on record, when both parents having been killed, other old birds of the party have taken the requisite charge of the egg or the young; a disposition in these birds that might be a proper lesson to man under similar circumstances.

The food of the Puffin consists of small fish and small crustacea; the young are fed with fish, until they can provide for themselves, and follow the example of their parents, with whom they leave their birth-place as soon as they are capable of doing so. The shape of the Puffin's beak is such as to enable the bird to lodge within it several small fishes at a time, which it carries securely while still continuing to catch more; and thereby the trouble of going for food for the nestling is considerably simplified; the bird may frequently be observed returning to the breeding-ground, laden with fishes, several of which project out of its beak, giving it the appearance of having moustaches.

The Puffin measures thirteen inches six lines; the beak one inch eleven lines; the height of the beak at the base is one inch seven lines; the tarsus one inch one line; the wing six inches six lines.

The crown of the head, collar around the neck, and the entire upper plumage are glossy black; the cheeks and throat are pearl-coloured grey, darkest about the base of the lower mandible; the breast and all the under parts are pure white; the legs and feet are bright orange; the beak is grey at the base, the middle orange, and the tip bright red; there are three grooves on the upper mandible and two on the lower; the gape is thickly bordered with a red skin, there is a pearl-grey horny appendage to the lower eyelid, of an oblong shape, and another on the upper eyelid, of a triangular form; the eyes are grey, the eyelids orange. There is no difference in the plumage of the two sexes. The plumage of the young birds differs in being dusky instead of black on the upper parts.

The egg figured 285 is that of the Puffin.



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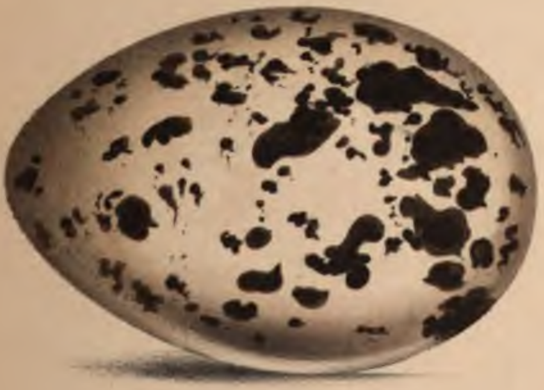

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Pl. 280.

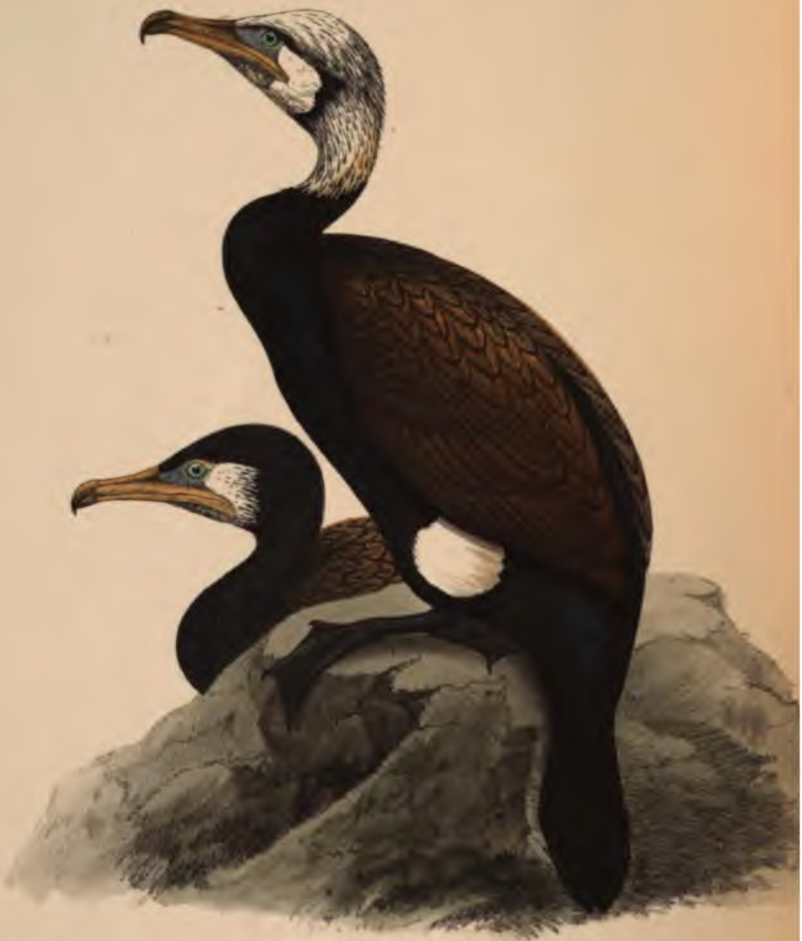


PLATE CCLXXXVI.

CORMORANT.

PHALACROCORAX CARBO.

The Cormorant is a constant inhabitant of the coast of Great Britain; and so widely distributed over the northern countries of Europe, Asia, and America, that it would be more difficult to name countries where it is not to be found, than those in which it is known to exist. In Norway it extends farther north than the latitude of Iceland, and it is found in the large Russian seas and the Icy Sea; and from the most northern parts of Siberia it reaches to Central Asia, and the East Indies. In Greenland, Hudson's Bay, and the whole of Canada it is common, and extends to the southern parts of the United States. In Europe this bird not only inhabits most of the shores of the countries north of Great Britain, but in a greater or smaller number is met with in every one southward to the Mediterranean. It is also found in the Grecian Archipelago, the Bosphorus, and the Black Sea, and in some rivers and lakes inland; but least of all in those of Switzerland.

This species can hardly be considered to migrate, but wanders from place to place where its food is more abundant at intervals.

No locality can be pointed out, as being preferred above another by the Cormorant, and it differs in this respect from most other birds; in the most northern countries it is found near the sea, and about the rocky parts, where trees and vegetation are almost unknown, as well as the habitations of man; and in the south it frequents, apparently, the wooded parts and even the direct neighbourhood of buildings, and also fresh-water lakes, and rivers that are partly filled with rushes and flags, provided always there is deep water and plenty of fish.

The choice in its roosting place differs as much in the north and south as its locality, inasmuch as it invariably mounts the highest cliffs in the north and the highest trees in the south, or it chooses posts, roofs of buildings, or logs that float on the water.

On shore the Cormorant is a helpless and dull bird; on the wing slow, but on the water very active and skilful.

In our plate we have represented the bird in its usual position, sitting on the shelf of a rock; but when it sits on the branch of a tree, it is enabled, by the form of its feet, to grasp it with perfect security, in which it differs greatly from most of its neighbours among sea-birds.

When this bird is engaged in fishing, it frequently swims with its head beneath the surface of the water, in order, most probably, to overcome the difficulty, caused by the ripple on the surface, of seeing its prey; and from time to time it dives under to catch the fish, which it can pursue for more than sixty or seventy yards under water before it is obliged to come up for air.

Several Cormorants may be seen at a time sitting side by side on the water's edge, looking out for fish; and if they are frightened, they rise up to a sufficient height in the air to be out of reach of gun-shot.

When this bird is met with at a distance from the sea it frequently seems to lose its presence of mind, and is easily approached and captured; when winged, it defends itself to the last with its beak, and is then as dangerous as the bittern under similar circumstances. Hawks, and even the white-tailed, or sea-eagle, have experienced the power and valour of the Cormorant.

Cormorants flock together in parties of thirty or forty and upwards, and occasionally in numbers of a much larger amount, above a thousand being sometimes seen to congregate.

The coarse call-note of this species sounds like the word *kræ*, *kraw*, *krell*.

The food of this bird consists in fish of various kinds, from eels to plaice, provided they are not too large; but the birds assist each other frequently in killing the more unmanageable fishes: a fish of the size of a herring or small mackerel it can swallow whole.

These birds have also been seen to swallow eels of two feet in length, *partly*, leaving the tail hanging out of their mouths until the head was digested. This fact being rather startling, at first view may need some explanation, which we are quite prepared to afford. The digestibility of fish is too well known to need any comment; but we can show that under some circumstances it takes place with a rapidity almost incredible. While writing this article I was speaking with an experienced angler on the subject, who told me that the same morning he had been fishing for jack, and had a run, as the expression is, leaving it for several minutes in order to give the fish time to gorge the bait: when he at last secured his fish he observed, on examining the bait (a bleak) that the head, which had been received into the stomach of the jack, was in a half-digested state, while the tail still remained perfect: nor was this the only time, my friend informed me, that he had observed the same thing respecting the rapid digestibility of fish. This circumstance perfectly agrees with our own experience on the subject; the bait, under such circumstances, being not merely torn or disfigured, but actually half-digested in the course of a few minutes.

The localities in which Cormorants breed are very various in character.

In northern countries the nests, composed of sticks and stalks of rushes or grasses, are placed on the shelves of rocks more than two hundred feet above the surface of the water; in Holland, where rocks are not known, lofty trees, or beds of rushes are chosen; and in southern countries, forest trees.

The female lays three or four eggs of smaller size than one would expect, considering the dimensions of the bird; the colour is bluish-green, without polish, and very chalky. As soon as the young are able to fly, they are led to the water by their parents, where they very soon take care of themselves; but before the second year they are not of age to pair.

The adult male bird measures three feet in length. The wing fourteen inches; the beak, from the forehead, two inches ten lines.

The female is about three inches less in length, and its other dimensions are in proportion.

In the spring the plumage of the male has the entire upper part of the head, the nape, and upper part of the neck, black, intermixed with narrow white feathers, forming a crest on the occiput; the chin and pouch are blue with yellow spots; the lower frontal part of the face, surrounding the pouch and gape are white, the lower part of the neck and entire under parts are greenish or bluish-black, according to the light, except a round white patch above the joint of the leg. The quills and tail black; the back and wing-coverts are brown, with rose and purple reflections, and each feather is distinctly margined with deep velvet black; the beak is yellowish-brown, with a horn-coloured tip; the legs and feet are black; the eyes emerald-green; the lore greenish-yellow.

The plumage of the female and male in winter are similar to the summer plumage above described, except that the head is black with blue reflections, like the under parts of the body, and the crest is entirely wanting.

The young bird of the year has the upper plumage, including the top of the head, dusky-brown; the lower part of the face white, as well as the belly; the breast is yellowish-brown; and the thighs, vent, and under tail-coverts, dusky; the eyes brown; the beak and pouch yellow.

In all stages the shafts of the tail-feathers are as strong as whalebone, which enables the Cormorant, not only to use the tail as a rudder under water, but also to rest on it when on shore.

The egg figured 286 is that of the Cormorant.

NATATORES. *PELICANIDÆ.*

PLATE CCLXXXVII.

SHAG.

PHALACROCORAX CRISTATUS.

The Shag is a common species on the rocky shores of Great Britain, and is found on most of the northern sea-coasts of Europe and Asia, and on some of those of America. It is common in Greenland, Iceland, and the Faroe isles; along the shores of Lapland, Finnland, and the bays of the Icy Sea, and from Europe to Asia as far as Kamtschatka; it is also found on the lakes of Siberia in great numbers, and extends southward to Scotland, Ireland, and England. On the western coast of Europe the Shag is only occasionally seen, and chiefly as solitary individuals: it is to be remarked that tolerable flocks visit the coasts of Corsica, Sardinia, and other islands as far as Cyprus.

The present species is not a more regular migrant than the cormorant, but seems to wander across the ocean in flocks of irregular numbers, either in search of food or for some unknown cause, as it does not regard cold or warmth sufficiently to be driven by those causes.

The Shag is still more a sea-bird than the cormorant,

since it is not known to lose sight of the ocean, if we except those that reside on the Siberian lakes; neither does it follow the course of rivers inland; and it differs in its habits from the foregoing species in resorting constantly during the breeding season to the rocks; it is never seen to perch on a tree, and consequently much less to place its nest in them. The localities chosen are the most barren and precipitous rocks that rise out of the sea, or that form its natural borders, where vegetation is hardly perceptible, and at an elevation of about a hundred and fifty feet.

The manners of the Shag are very similar to those of the cormorant: when perched on the shelf of a rock it sits upright, resting on the stiff feathers of the tail, and remains in that position for hours; but the present species has also a propensity of laying itself so flat on the ground that it cannot be seen unless the beholder approaches very near. The walk of the Shag is unsteady and very unwillingly performed, it consequently remains frequently for some time in the position in which it alights; it is also very fond of sitting on a low piece of rock that is partly washed by the waves and foam of the sea; under such circumstances the Shag employs much of its time in drying its plumage by opening its wings and beating them at full length in the air. In swimming and diving this species is equally expert with the cormorant, and its food, which consists chiefly in fish, it obtains in the same manner, namely, by diving. It has been remarked that the fish taken by this bird chiefly belong to the species which habitually frequent the bottom of the sea, and the Shag is thererefore obliged to dive to the depth of from a hundred to a hundred and fifty feet in order to obtain them; and its peculiar stiffly formed tail is said to be used by the Shag as a powerful instrument to force itself up again to the surface of the water as soon as it has mastered its prize: this accounts for the worn state of the tips of the tail that may be observed in every Shag that lives in a state of nature.

The breeding places of the Shag are already stated to be the shelves of rocks by the sea-side, but at a lesser elevation from the water than those of the cormorants. Twenty or more pairs of these birds may be found congregated for the same purpose; the nests are composed of sea-weeds, more or less carefully put together, and the eggs are three or four in number; in size, shape, and colour as represented in our plate. The materials of which the nest is composed, being impregnated with salt, by which they are kept in a wet state, form, together with the remains of their fishy food, a combination of odours better imagined than described. The greater number of Shags are reared in the northern countries before enumerated, and it is ascertained that these birds annually return to their immediate birth-place in the breeding season.

The entire length of the Shag is twenty-eight inches, its beak two inches and a half; the tarsus two inches two lines; the tail five inches two lines; the wing ten inches and three quarters.

The plumage of the adult Shag in winter is a rich, deep, glossy green; the upper part of the back and scapulars and wing-coverts reflect purple and bronze, and every feather is narrowly edged with deep black; the tail is fan-shaped and black. The base of the beak and the pouch are yellow, the beak brown, the legs black, and the eyes emerald green.

The spring or breeding plumage is fuller coloured, and the bird has a tuft of feathers on its head, which it erects at pleasure, as represented in our plate.

The young bird of the year differs very much from the adult in having the upper plumage brown, tinged with oil-green; the under plumage brownish ash colour, and the chin, throat, middle of the breast and belly white; the thighs and upper tail coverts are dusky; the tail dusky, each feather edged with pale ash, the tips of the feathers white.

The egg fig. 287 is that of the Shag.

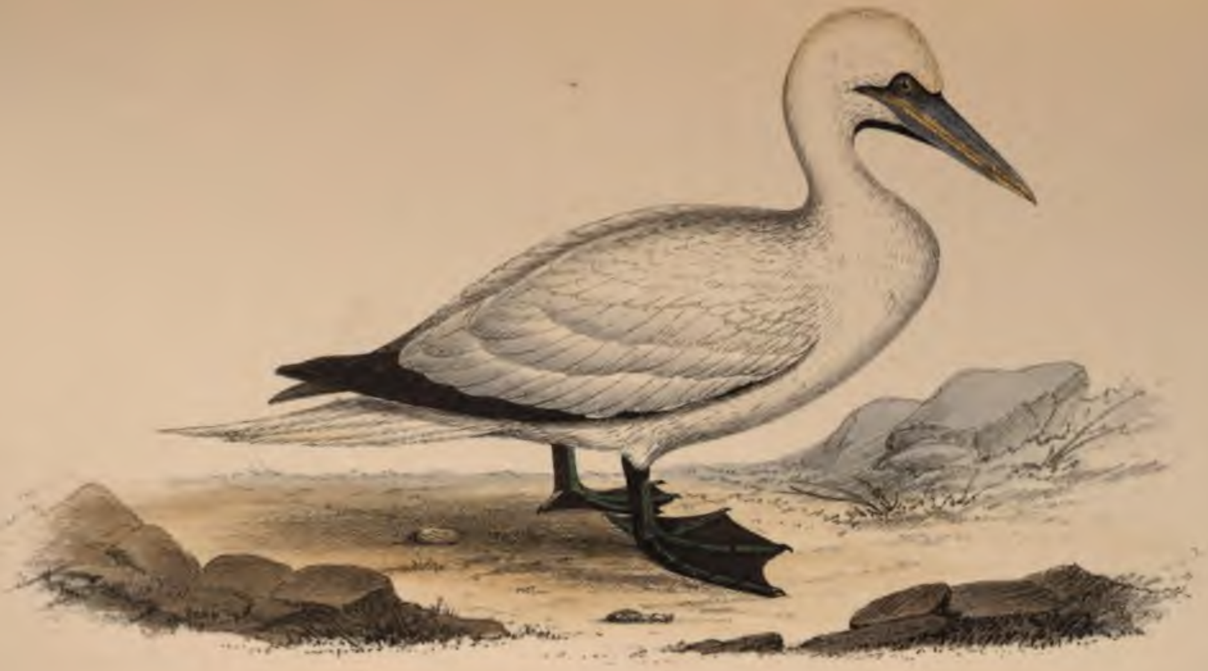
PLATE CCLXXXVIII.

GANNET.

SULA BASSANA.

The Gannet is not only a periodical visitant on the coast of Great Britain, but so numerous in some parts, that the owners of the land they frequent let the privilege of taking this bird for considerable sums; the Bass Rock in the Frith of Forth, for instance, is let for sixty to seventy pounds per annum, according to Mr. Selby's statement. The most noted rocky spots in which the Gannet is very numerous are Ailsa Craig at the mouth of the Frith of Clyde; St. Kilda; Saulirkerry near the Orkneys; the Skelig Isles on the coast of Ireland, and the Bass Rock before mentioned.

This species is of frequent occurrence throughout the north of Europe, Asia, and America; it extends rarely further north than the middle of Norway, and the south of Greenland; it is frequent on the southern coast of Iceland, but not so on the northern; the Faroe and Orkades are regularly visited by this bird. In America it extends from Greenland to the middle of the United States.



Pl. 288.

On the approach of winter the Gannet migrates southward; on departing from our shores they first go to the Channel in pursuit of herrings and pilchards that habitually leave the shallow water of the coast for deep water at that time of the year, and proceed further to the Bay of Biscay, to the coasts of Portugal, Spain, and the Mediterranean, and extend even to the southern coast of Africa, where they pass the winter, as well as in the intermediate parts. The open sea is the proper locality for the Gannet; it comes nearer to the shores of the different countries enumerated only in pursuit of its food, or during the breeding season; and when it is driven inland by a continuance of very stormy weather, or some unforeseen circumstances, the straggling bird is entirely out of its element, flies on and on until it drops exhausted to the ground, and may either be picked up or knocked down with a stick, without its making any attempt to escape, or to defend itself. While on land, during the breeding season, it prefers the most naked and barren rocks, or such as are only partly covered by short grass; this bird, however, roosts at night either on such rocks, or on isolated rocks in the sea; but for want of either, during long journeys, it rests itself on the water for a short time, and then takes wing again in order to reach its destination. The Gannet is better qualified for flying than swimming, or walking, and it might easily be taken for a tern, if its wings were not shorter and its tail more pointed than in that genus. Its evolutions are very beautiful and expert, and its manner of obtaining its food, which consists entirely of fish, is very peculiar, as it does not seem to be gifted with the knowledge of diving in the usual manner practised by water birds; but skims over the surface of the water at a higher or lower elevation, watches its prey, and shoots either in a perpendicular or a slanting direction, with the wings closed, into the liquid element, and, pouncing upon it, rarely misses its aim, and emerges soon again at a little distance from whence it disappeared. Some ornithologists state that the bird when winged, and being pursued in a boat, dives, being urged by necessity, and thus evades pursuit. The flight of the Gannet is performed sometimes by quick strokes of the wings, and at others by skimming through the air in the manner of hawks or swifts. The appetite of the Gannet is very great, in consequence of which this bird is frequently caught in the nets of fishermen, where herrings are the object of both.

This bird also frequently robs the slow-flying gulls of their game, and sometimes devours, in its eagerness, more than it can comfortably manage, and is obliged to remain floating on the surface of the water in such a helpless state, that boatmen pick them up with ease.

The numbers that are annually taken by persons who make it their business is very great; and their feathers or down are very valuable. In Scotland, the bodies are sold for twenty pence each, and eaten by the inhabitants a short time before dinner, in order to create an appetite; but the flesh being of a very fishy flavour would hardly increase the enjoyment of a dinner in the estimation of an inhabitant of southern Britain.

In the spring of the year, the numbers of Gannets that congregate on the rocks amount to thousands upon thousands, and give them the appearance of being covered with snow, and the immense swarms that fly about perfectly overshadow the ground. In consequence of the care that is taken that no shot is fired at the Gannets within a certain distance of their breeding places, the same flocks return annually to the same spot, which fact has been ascertained by marked individuals, that have returned, to the knowledge of the inhabitants, for more than thirty years. The nests, which are constructed of sea-weeds and grasses, are placed on the ground side by side, and contain each one single egg; the parents sit about six weeks, and not being ill treated they are so tame that a person may go to the sitting birds and stroke them without their moving off, and may even take the bird off the nest and examine it without apparently creating any uneasiness to the individual. It is very remarkable that a great many eggs are annually found to be unfruitful.

The entire length of the Gannet is two feet ten inches, the wing nineteen inches from the carpus to the tip.

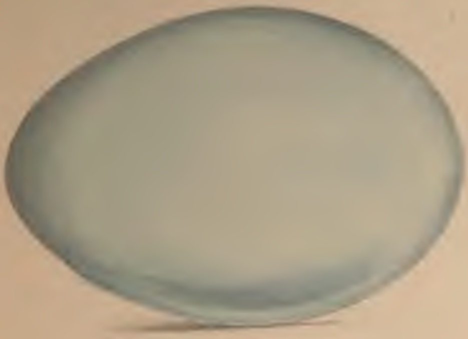
The entire plumage of the adult bird is white, with the exception of the quill feathers which are black, and the head and neck which are buff-coloured; the beak is greyish-white horn colour; the edges toothed; the naked skin around the eyes blue. The forehead, eyebrow, and frame to the root of the upper mandible, black, as well as the pouch under the chin; the eyes are pale straw yellow; the legs in front and the toes green; the joints, hinder parts of the tarsi and webs, black. The tibia is feathered to the tarsal joint.

The male and female are alike.

The plumage of the young bird is very different, and might easily be mistaken for another species by persons unacquainted with the subject. The upper plumage is cinereous brownish black with spots and streaks of soiled white; the under parts cream-coloured white with triangular black spots on each feather; the quill and tail-feathers dusky. The eyes are dusky; the legs and toes as in the adult, but lead-coloured instead of green. The beak is almost black; the naked skin around the eyes blue-black.

The young comes perfectly naked out of the egg, when its colouring is bluish-black; but in about a week it becomes entirely covered with a white down, like young owls.

The egg figured 288 is that of the Gannet.



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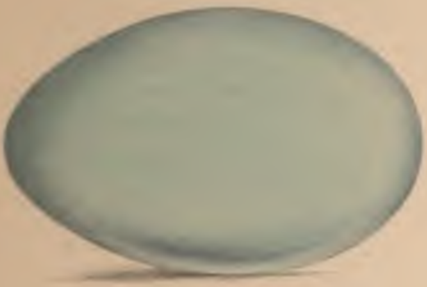

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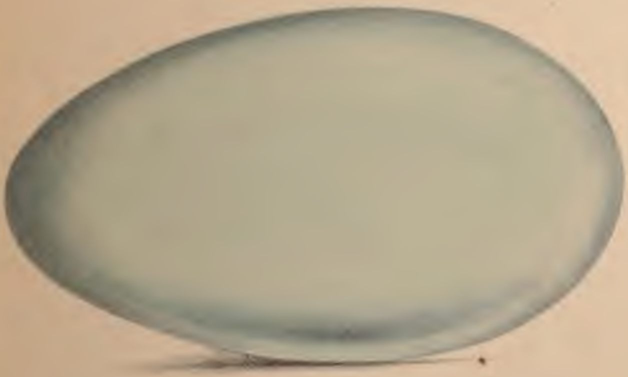

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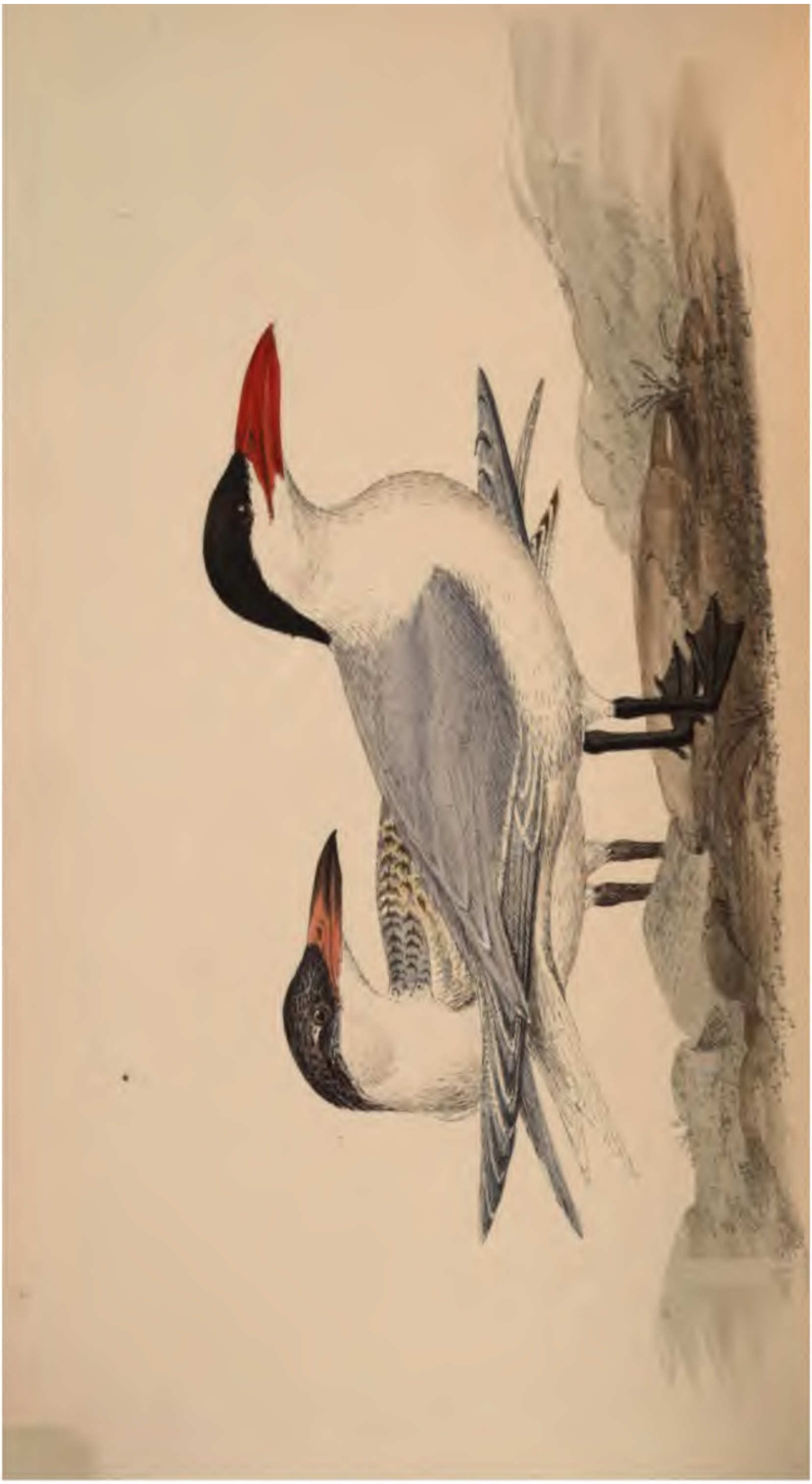


PLATE CCLXXXIX.

CASPIAN TERN.

STERNA CASPIA.

THE Caspian Tern is a rare occasional visitant in Great Britain; the only recorded specimens having been taken on the coast of Suffolk, in the vicinity of Yarmouth and Aldborough. The greater numbers of this species are found upon the borders and isles of the Caspian Sea, from whence it derives its name; from thence it extends over many parts of Asia, India, and China, and even to the Sandwich and Friendly Islands: it also visits the Black Sea, and the Grecian Archipelago. In Egypt this bird is also met with.

The Caspian Tern is not found to frequent any southern or western shore of Europe, except accidentally; and on the coasts of Holland and France it is hardly more frequent than on our own; in some spots on the southern Swedish coast it occurs in numbers, as well as on many parts of Denmark, and the Danish Isles, during the summer months. On the Island of Sylt, from two to three hundred pairs breed annually, among myriads of other sea-birds; but in consequence of the increasing inroads of the sea upon the coast of Denmark and of the Danish Isles, and upon the shores of the Baltic, the number of sea-birds in general naturally change their localities, and decrease in numbers. More northward than the before-mentioned spots, this bird is not met with.

The Caspian Tern is a migratory species, arriving in the latter part of April in its breeding-places, and departing in August for milder climates; these migrations are principally performed during the day, although they appear occasionally to travel by night, being seen sometimes in the morning where none had been observed the previous evening; their flight is at that time at a great elevation through the air.

The sea and salt-water lakes are at all times preferred by the Caspian Tern, where the water is clear and open; but either in deep or shallow water, on a rocky coast or a flat sandy shore, this bird equally finds its home for the time of its residence. When disturbed, the Caspian Tern flies invariably towards the open sea, and disappears, but never seeks its safety by resorting to the land, and its appearance on fresh-water lakes or rivers, is consequently very rare. The waters of the Caspian Sea being brackish, as well as those of the Sea of Mansfeldt in Saxony, where this bird has been captured, are not to be reckoned among other inland lakes, where the water is of a different nature.

The food of the Caspian Tern consists chiefly in live fish of the species Clupea, its manner of taking which, is by flying at a little elevation over the water, and hovering from time to time in the manner of the kestrel hawk, in order to watch its prey the better; when it has marked its fish, the bird pounces down and catches it in an instant, and swallows it whole; the large beak, and consequently wide gape, make the ingress of a good-sized herring an easy matter. It is said that this species dives after its prey, but from our own information on the subject, we are enabled to say that it mostly watches for fish that swim near the surface of the water, and which consequently it very easily obtains by dipping its beak and head only in the liquid element. Shallow bays and sand-banks are the most probable places in which to find the Caspian Tern in the act of feeding, and clear still water is invariably preferred. The fish which the present species takes are always of a size which it can swallow entire, and as soon as it has obtained its fish, the bird pinches it apparently, and turns it in its beak so as to be able to swallow it head foremost, an act which occupies very little time. Besides fish, the young of other birds are also frequently consumed by the present species, the remains of which have been found in its stomach.

The numbers of the Caspian Tern not being so great as those of many other sea-birds, the nests are not found in such incredible quantities, but nevertheless from two to three hundred pairs of Caspian Terns are annually found colonizing on the Island of Sylt, on the very edge of the land. The nest is only a hollow scratched in the sandy ground, in which the eggs are deposited, being two or three in number; and the young are hatched in about twenty days. The nestlings are at first covered with a white down, spotted with dull grey marks; they soon run about, and are brought up by the parent birds with small fishes. Although the birds use great exertions to prevent an intruder from approaching the nest and eggs, by flying over his head, and making a considerable noise, yet it has been remarked that when they are once disturbed they do not easily return to their nest, and are said even not to revisit the same spot the following year if they are fired at.

The large red beak, deep black crown of the head, the pure white plumage of the under parts, and pearly colour

PLATE CCXC.

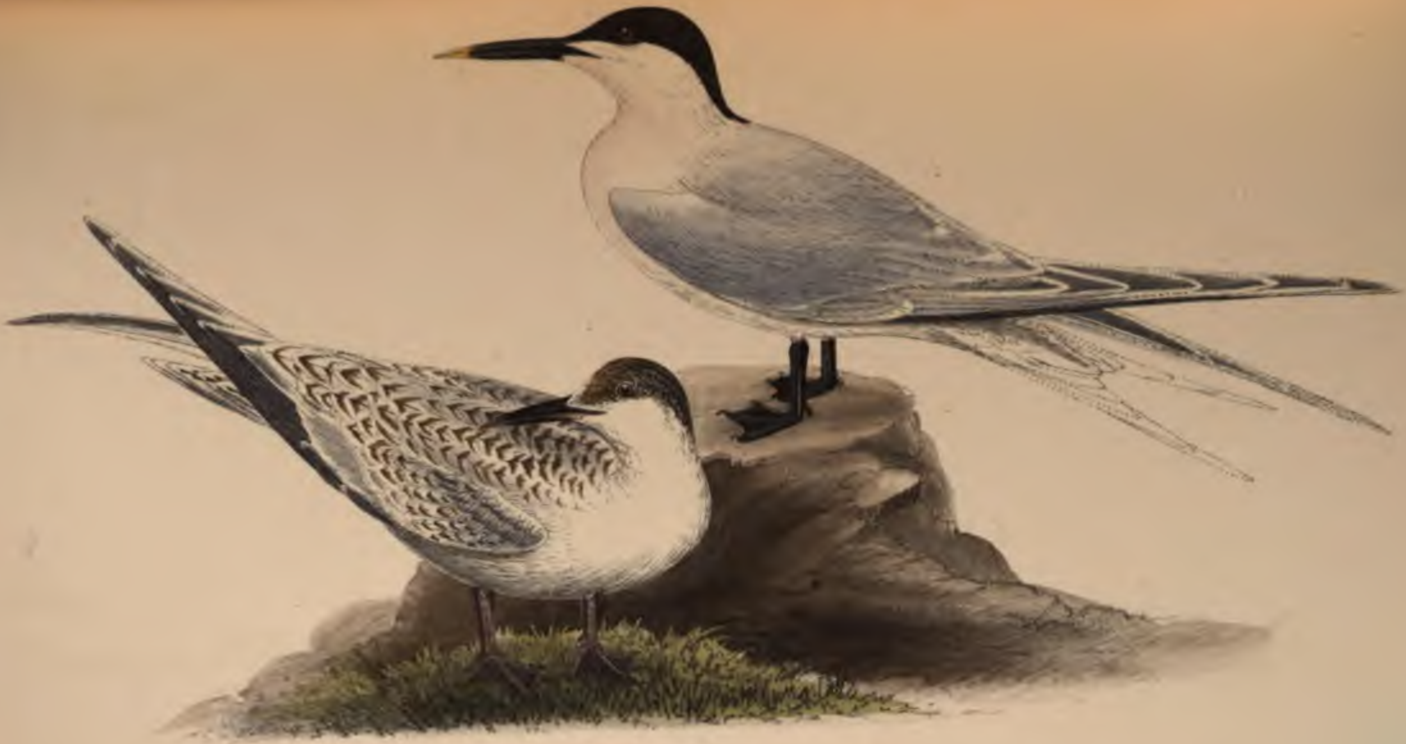
SANDWICH TERN.

STERNA BOYSII.

THE Sandwich Tern is a periodical visitant in Great Britain, and has only been added to the list of British birds since the communication of Dr. Boys, of Sandwich in Kent, to Dr. Latham, who noticed it in his "General Synopsis."

The geographical distribution of this species extends far and wide, but the bird seems to belong chiefly to the temperate climes, since it rarely occurs further north than the fifty-seventh degree, even during the summer months.

In Great Britain the Sandwich Tern resorts annually to the coast of Northumberland, and the Isle of Coquet; it is found in great numbers on the Fern Islands, and in lesser numbers on the Kentish, Sussex, and Suffolk coasts. In Kamtschatka, New Zealand, the Cape of Good Hope, Mexico, Brazil, and many parts of North and South America, the Sandwich Tern is well known, and equally so in most parts of Europe, from the southern parts of Denmark to the Mediterranean. During the



Pl. 290.

breeding-season the immense numbers of these Terns that resort together, cover the ground beyond imagination in some of their favourite localities, among which we must particularly enumerate the Islands of Norderoog, Suderoog, Pelworm, and Amrom, off the west coast of Schleswig, and the coast and sand-banks of Holland and Friesland, where the ground is so entirely covered with them, that their appearance can be compared to nothing else than snow; and when the birds happen to take wing simultaneously, they form, without exaggeration, a perfect white cloud.

We presume to make an observation on the subject of the Sandwich Tern, to account for its not having been noticed by British Ornithologists before the time of Dr. Boys, and we have the opinion of Dr. Latham also, to the same effect; namely, that this Tern has the peculiar habit of taking up its summer residence in a certain spot, and after a time to change it so entirely for another, that it is not again to be met with for many years: on the Island of Stüber, for instance, the present species used formerly to be very numerous, but now, and for many years past, there is not a single individual to be found. That this Island of Stüber has shared the same fate as the Goodwin Sands, by being reduced to a sand-bank, might, in a great measure, account for the abandonment of the island, but who can say whether this very circumstance may not have contributed to extend the Sandwich Tern to the shores of Great Britain, and thus exonerate the ornithologists of former days.

The present species is exclusively a sea-bird, and does not even enter rivers out of sight of the ocean, nor is it found inland under any circumstances; it is a migratory species, arriving in our latitude by the end of April, and remaining until the end of August or the beginning of September.

These birds being very sociable towards their own species, journey in great numbers, and reside also in large flocks; their migratory journeys being performed during the night, the flocks are not observed until they have arrived, either for recruiting themselves, or for taking up their quarters.

The locality preferred by the Sandwich Tern is chiefly the shallow sandy sea-shore, where the water is clear; this bird is also frequently found on low ground, where short grass grows, provided there is a good supply of small fish near its edge, and even a rocky coast harbours this species under similar circumstances. The Sandwich Tern is observed to be particularly fond of settling on sunken rocks where the waves run high, and the surf is heavy: this being a peculiar fancy belonging to this species, it is sometimes called by the name of Surf Tern.

During the night, the Sandwich Tern roosts on the ground, close to the water, and in places where these birds abound, it has been observed that the congregation for this purpose does not commence before the sun is set, when the party continue their chattering till midnight, and recommence the same at daybreak, when they employ themselves in pluming till the sun has fairly risen, after which they go in search of food, roving to the distance of more than a dozen miles.

The greater part of the day is past in search of food by this Tern, and consequently it is continually on the wing, like our swallows and martins; its powers of flight are very great, and its evolutions exceedingly beautiful to behold, it flies and skims generally in mid-air, unless it lowers itself to come within reach of its prey, or mounts high in the air when intending to fly to a distance.

This bird is very shy, and consequently difficult to approach within gunshot, except during the breeding-season, when its nature seems changed to courage in defence of its young, and want of common precaution for its own safety. It is said, that when a person approaches the bird on the nest, it frequently beats the intruder about the head with its wings in the hope of intimidating him.

The call-note of the Sandwich Tern is very peculiar, and sounds like *kirk*, or *cree* !

The food of the present species consists in fish, from the smallest fry to the herring of five or six inches in length, which it catches on the wing: during its search the bird holds its body in a horizontal direction, and its head and beak at a perfect angle, with the point of its beak downwards. When this Tern perceives a fish, it hovers for a short time over the spot to await the proper moment for the stroke, and then it darts on its prey, but never dives under water for it; where the waves run high, it takes many a fish by skimming between the waves, and especially makes free with any exhausted one that is carried to the top by the force of the current.

That Sandwich Terns breed always in large parties together is a well known fact, as well as that the numbers amount not to hundreds but to thousands of pairs, and the nests are placed so very close together that it is a difficult matter not to destroy the eggs at every advancing step. On the approach of a person to the spot, the whole party get on the wing and fly in the greatest confusion in all directions over the place, while the birds uttering their cries of alarm at the same time perfectly bewilder one's senses. The chosen ground is either short grassy meadow land, or sandy ground in the most open spots possible, without any other vegetation.

The eggs are generally two in number, although they amount to three in some instances; they are laid on the

PLATE CCXCI.

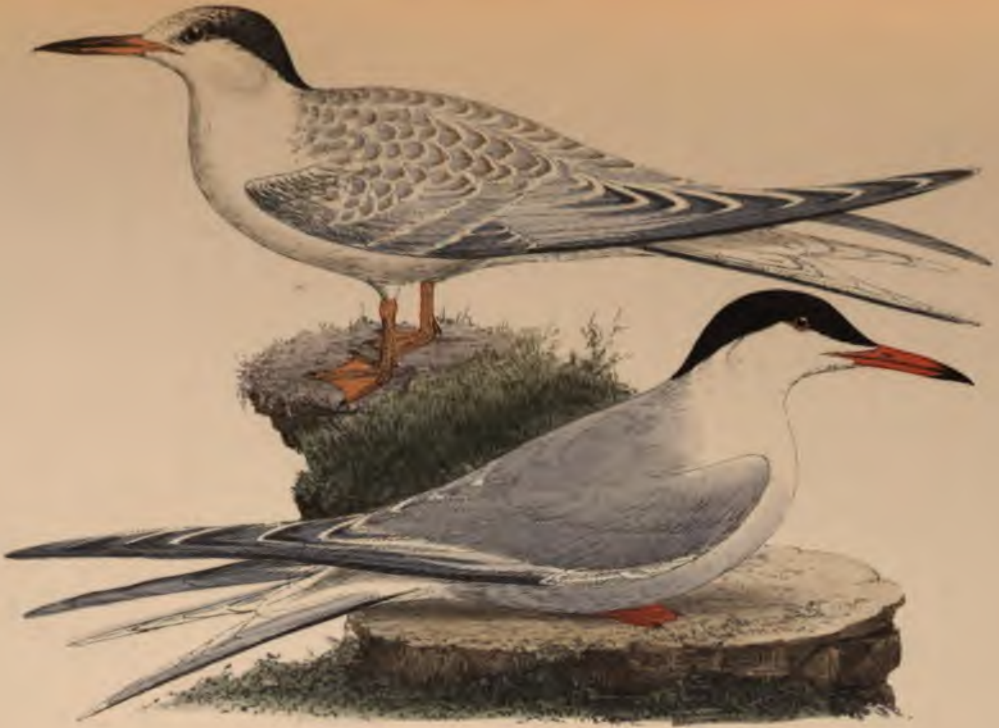
COMMON TERN.

STERNA HIRUNDO.

THE Common Tern is a periodical visitant in Great Britain, and extends over the sea-coast of many countries, but not so far north as was formerly supposed, before the arctic tern, with which it was confounded, had been noticed and described.

The present species extends only over some parts of southern Norway, from whence its place is supplied by the arctic tern northward. In Holland this bird is of frequent occurrence, as also in France and Switzerland; in the Baltic and in Italy it is less numerous. The locality chosen by the Common Tern is a sandy or shingly flat by the sea side, or the borders of lakes and rivers; the mouths of rivers, as well as the rivers themselves, are particularly frequented by them.

The Common Tern is migratory, arriving in April on our coast and departing in September, somewhat sooner or later, according to the state of the weather, to pass the winter months in warmer climates, although it is not



Pl. 291.

known to what countries this bird resorts for that purpose. The migratory journeys are often performed during the day, when the birds fly at a great height and apparently very slow.

The flight of this species is generally quick when in pursuit of its prey, and its evolutions very greatly resemble those of the chimney swallow; it is consequently a beautiful and amusing sight to watch the bird when on the wing. It is frequently seen running about and picking up insects, or sitting for rest on the shingle; its chief food consists of fish, either dead or alive, which it catches for itself, or obtains by pursuing and harassing the smaller gulls, until they disgorge the fresh-caught fish, which the Tern catches up before it reaches the watery surface in its fall. During stormy weather, when the waves of the sea are high, the present species frequently flies up and down the course of rivers, where it finds food with more ease and certainty.

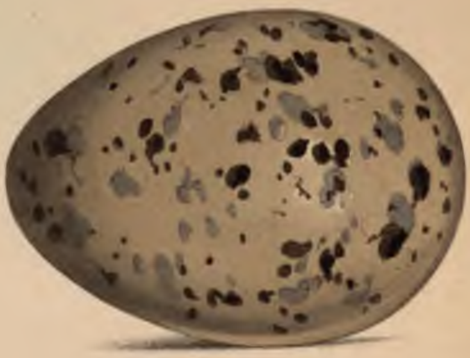
On the 6th of October, 1846, we shot two terns as high up the Thames as Chertsey Weir; judging from the lateness of the season, they were probably on their migratory journey: one of them was an immature male of the Common Tern in autumn plumage; the other, a young of the year, of the arctic tern; this is rather a remarkable circumstance, as the arctic tern is said never to be found inland. It afforded us, however, a good opportunity of comparing the two species together.

That the Common Tern breeds in most of the before-enumerated northern countries of Europe is well authenticated, but where the greater numbers are produced, whether high northward, is not decided, particularly since the arctic tern has proved a distinct species. The chosen locality is invariably some extensive sandy or shingly flat, where from ten to a dozen pair breed in company, depositing their two or three eggs on the bare ground, without forming any nest whatever. The female sits all night on the eggs, and the male takes her place from time to time during the day, if the weather requires them to be kept warm, while the female feeds; or the eggs are left to be warmed by the rays of the sun; in sixteen days the young come forth, and in three weeks more they are sufficiently fledged to follow their parents on the wing.

The Common Tern measures fifteen inches in entire length; the beak, fifteen lines from the forehead, and twenty-two lines from the gape to the tip; the tarsi, nine lines; the wing, ten inches from the carpus to the tip; the outer feathers of the tail, five inches three lines; the middle feathers, three inches nine lines, which shows the exact fork of the tail.

The plumage of the young male in the autumn is as follows: the forehead and top of the head, hoary black; the nape and hinder part of the head and ear-coverts, extending over the eye, and just before the eye, are black, as well as the hinder part of the neck, as represented in our plate; the back, scapulars, wing-coverts, and outer webs of the tail-feathers, with exception of the two middle ones, are gull grey. The feathers of the back and lesser wing-coverts are marked with ferruginous crescent-shaped stains; the secondaries and tertials are tipped with white; the quills are grey, their tips hoary grey, and the outer web of the first, black; the spurious wing, white; the chin, sides of the face, and all the under parts, rump, and tail-coverts, white; the beak is salmon-coloured, the upper ridge and tip, dusky; legs and feet, salmon-colour; the claws, dusky; the eyes, dusky brown.

The spring plumage of the adult has the upper part of the



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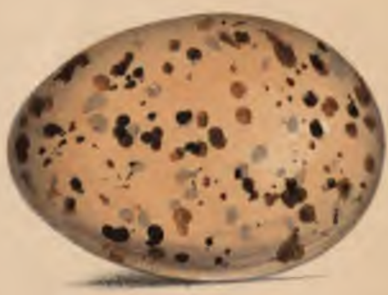

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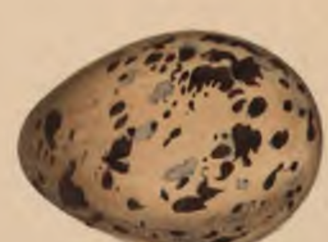


291.

head, from the forehead to the nape, black; the hinder parts of the neck, and all the upper plumage, quills, and tail-feathers, with exception of the two middle feathers of the tail, gull grey; the tips of the quills are hoary black, as well as the outer web of the outer tail-feather; all the under parts are white; the lower part of the breast and belly are gull grey, with a pinkish tint; the beak, and legs, and feet, are coral red; the eyes brownish black.

The egg figured 291 is that of the Common Tern.

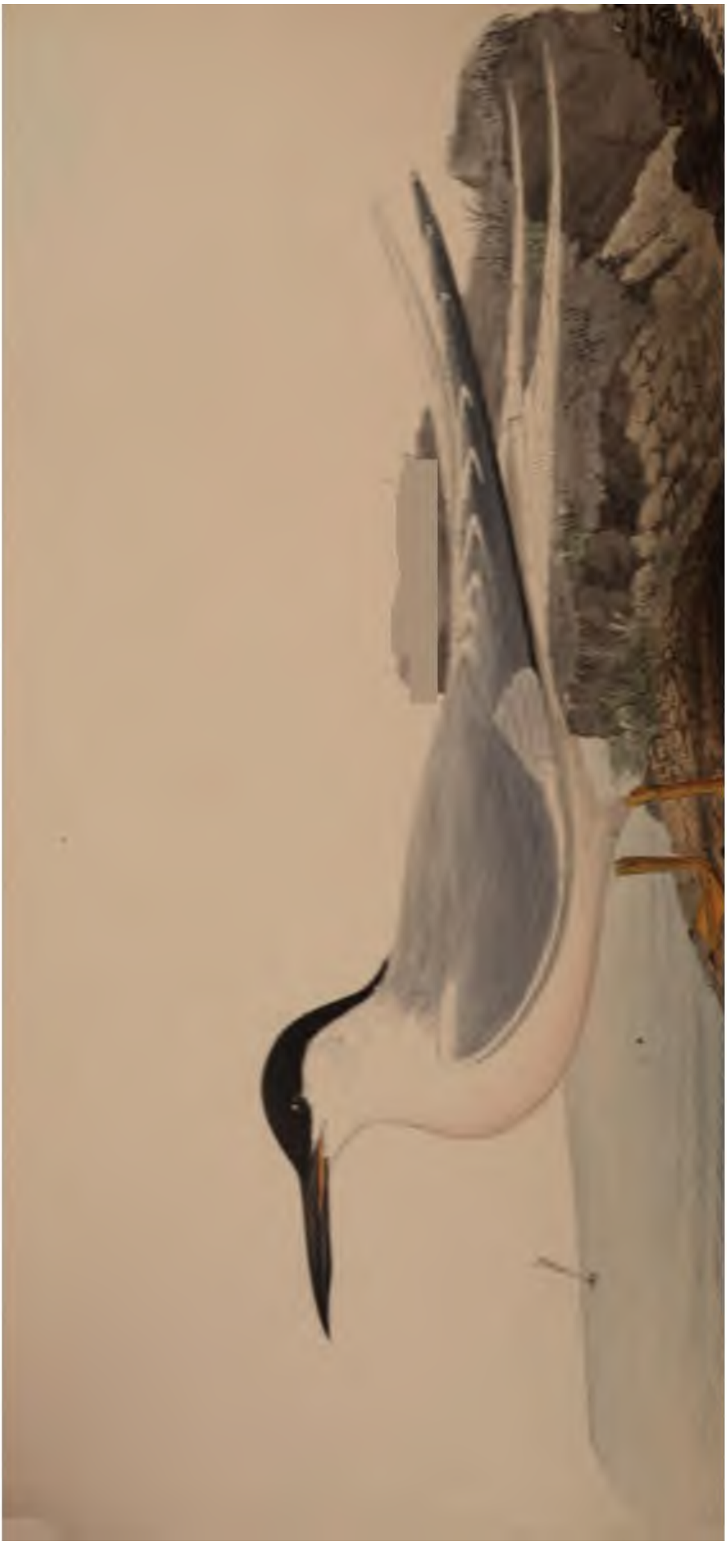


PLATE CCXCII.

ROSEATE TERN.

STERNA DOUGALLI.

The Roseate Tern is a periodical visitant in Great Britain, and has been named Sterna Dougalli in compliment to Dr. McDougall, who first noticed the bird on the Cumbray Islands in the Frith of Clyde; since which it has been found to breed annually on several parts of our coast.

The geographical distribution of the Roseate Tern extends over many parts of the European continent, but nowhere in greater numbers than on the Fern Isles, the Scottish coast, and the coast of Northumberland; on the Dutch coast it is sometimes met with in the months of August and September.

The localities frequented by the present species, are the rocky shelves of the spots before enumerated, where the common tern abounds, and the eggs procured have been found among those of that species; and it seems probable that the birds in question breed in companies, as those found were in groups of ten to twenty. More than the partial and imperfect information on the subject of the Roseate Tern here

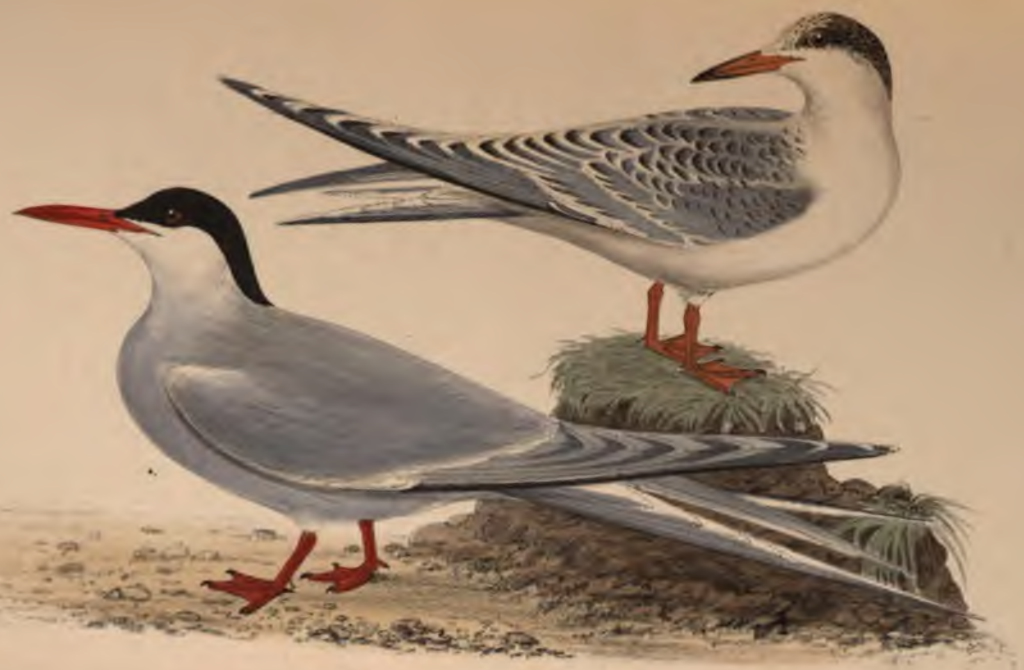
NATATORES. *STERNIDÆ.*

PLATE CCXCIII.

ARCTIC TERN.

STERNA ARCTICA.

The Arctic Tern is a summer visitant in Great Britain, particularly on the Northumbrian coast, and it annually breeds in great numbers on the Fern Islands. This species has only of late been distinguished from the common tern on account of the shape of its beak, and shorter tarsi; but it has other points of distinction, which are equally worthy of notice.



Pl. 293.

exclusively frequents shingle or sandy flats; on the Dutch coast it occurs chiefly during a continuance of north-westerly winds. Upon the coast of the Mediterranean Sea and Italy it is rarely seen, but we are informed that it is not unfrequent at the Cape of Good Hope—in the latter place probably during our winter months. As this bird is so entirely a maritime species, we presume that its migrations extend along our sea-coasts, from the north to the south-western extremity of Europe, and are further continued along the western coast of Africa, to its south and south-western extremity. In April the Arctic Tern makes its appearance in our regions, and it departs in August or September.

The specimen mentioned in page 83, which we killed on the sixth of October, 1846, on the Thames, near Chertsey, in company of an immature male of the common tern, was a young bird, and is a great proof of the correct observations made on the subject by Temminck in regard to its plumage and other peculiarities. We figure the bird in our plate with the adult in summer plumage. It is a very extraordinary circumstance that these two individuals should have journeyed in company, and particularly so that the present species should have come so far inland.

The locality in which this species is found is, by choice, some extensive muddy flat near the sea; sometimes sandy flats, and even rocky districts are chosen, according to circumstances; among other spots, the meadows near the sea, that are covered with short grass, or scanty vegetation, appear to suit the habits of this bird equally.

The initiated ornithologist who has seen the Arctic Tern and the common tern in a natural state will undoubtedly allow that the present species is by far the more graceful in its motions of the two, and the colouring of its plumage and beak more beautifully contrasted.

The Arctic Tern is not much in the habit of running about on the ground, and can only proceed in a shuffling manner a couple of feet from where it alights, and its capacities of swimming are equally slender, but its flight is light and elegant, and can be continued for an incredible length of time; the bird alights with great ease, and with equal facility takes wing from the ground or from the surface of the water, a circumstance that forcibly struck us when in pursuit of the young specimen before mentioned. Sociability is one of the virtues of the Arctic Tern, as it is rarely found otherwise than in parties of its own species, and during the breeding season generally in company with divers other sea-birds.

The present species is also gifted with a great curiosity, for if a person turns up the ground, or drops a piece of paper or handkerchief, the bird is almost instantly on the spot for the purpose of investigating, by hovering over the object, and soon is accompanied by as many of its own species as are near at hand.

This bird is harmless and confiding to a great degree, and in the breeding localities this creates great surprise to the observer, who is thereby enabled to admire it very closely; but this only occurs while the bird is on the wing, for no tern remains on the ground within gunshot on the approach of man, although it will immediately after skim through the air close by the intruder.

The call-note of the Arctic Tern differs also very considerably from that of the common tern; it sounds like *geer*, *greer*, or *give*, *give*, uttered in a soft melancholy tone.

Fish, aquatic insects, their larvæ, small crustacea, and worms constitute its food; the fish it catches on the wing, the insects it finds on the shore, and the crustacea it looks for on the muddy flats at low water, and finally, the worms are obtained on the meadows, or in following a labourer at the plough; during fine weather the fish are easily obtained, and in stormy weather the land productions are resorted to, as this species is not able to withstand the wind in its flight.

The breeding places are the sea-shores of inlets, islands, and the mouths of rivers, but never about inland rivers; whether the ground is low or somewhat elevated, has been ascertained to be of no great moment. The two or three eggs are placed on the ground in a small hollow scratched for their reception, and several pairs always breed together, and most frequently near the broods of other sea-birds, among which we must enumerate the herring-gull. About the end of May, or the beginning of June, the eggs are produced, and after fifteen or sixteen days' incubation, the young make their appearance, which are soon fledged and able to follow their parents in search of food.

The measurements of the adult Arctic Tern are as follows: entire length fifteen inches; the beak from the forehead, one inch four lines; the tarsus, seven lines; the tail, seven inches nine lines; the wing, eleven inches.

The summer plumage of the adult is very similar to that of the common tern, but sufficiently different to distinguish them; the gull-grey of the upper plumage is much darker, and the edges of the inner webs of the quill-feathers are grey instead of white; and the outer webs of the longest tail-feather, and of the first quill feather, are hoary grey, instead of nearly black, as in the common tern. The chin and sides of the face are white, but the throat, breast, and all the under parts are nearly as dark gull-grey as the back. The beak is more arched than in the common tern, and stouter, and deep scarlet without any black tip;

the legs and feet also scarlet; claws dusky. The young in autumn plumage is white on the forehead, the region of the eyes, ear-coverts, nape, and hinder part of the neck are black; the back, scapulars, wing-coverts, primaries, and secondaries gull-grey, barred with black on all except the primaries, by each feather having a crescent-shaped spot near its tip; the sides of the face, chin, and all the under parts are white; the grey on the primaries darker than the back; the beak, vermilion at the base and under mandible; the ridges of the upper mandible and the tip of the beak are dusky; legs and feet pale vermilion; claws dusky; the eyes brown.

The egg fig. 293 is that of the Arctic Tern.

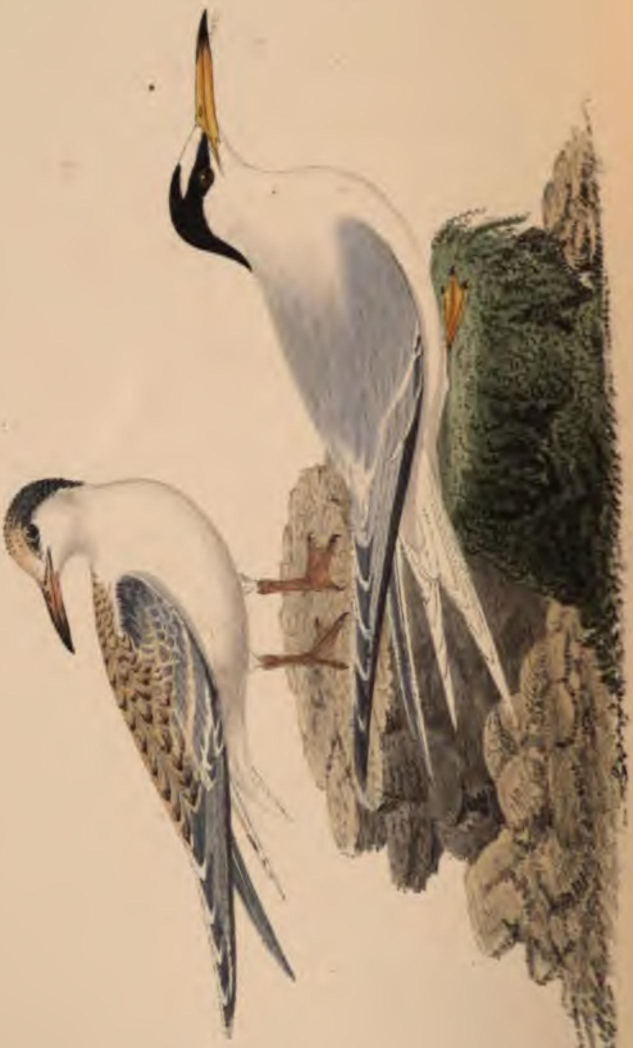


PLATE CCXCIV.

LESSER TERN.

STERNA MINUTA.

THE Lesser Tern is also a periodical visitant in Great Britain; by far less numerous than the several foregoing species, and apparently choosing a locality of its own, or rather keeping separate from the others of its family, during its stay on our coast.

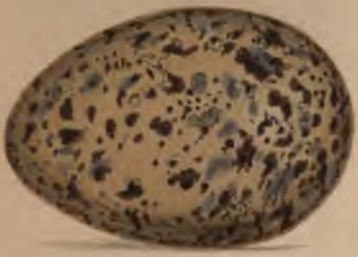
This species extends in Europe over most sea-girt countries, as high north as the fifty-eighth degree; in Asia it is equally known, as well as in America, from New York to the gulf of Mexico, and again on the western coast of Africa; on the Canary Islands it is frequent during the time of migration. On the coasts of Holland and France, as well as the more northern coasts, such as Holstein, and the mouth of the rivers Elbe, Weiser, &c., this bird is common, although nowhere very numerous.

Although the Lesser Tern is an oceanic bird, as Selby calls it, yet it is frequently found on inland lakes and rivers; and, as the bird prefers a gravelly or shingly locality, it is natural that it should be more frequently met with on the Rhine, and the lesser rivers that flow into it, than on others of a different nature.

The Lesser Tern is a migratory species, it arrives on our coast in May, and departs again as early as August, following the road southward as before enumerated, both along the sea-coast, and across the land, along the banks of rivers and lakes. Besides sandy and shingly ground, this species prefers shallow water, and is consequently rarely seen on rocky shores that abruptly form boundaries to deeps. The migratory journeys are performed in pairs or small parties, both during the day-time and in the night, flying at a great elevation, which is proved by the beautiful spectacle presented when a person happens to be on a suitable spot during the time of migration, where a party of these Terns come down to the ground for the sake of rest, and soon after taking wing again and rising up in the air, disappear in an incredibly short time, mounting to an elevation that takes them entirely out of sight.

The present species is a very beautiful creature when seen alive in its natural state, but its exquisite and delicately coloured plumage and clean appearance are never represented in a stuffed specimen, nor ever enjoyed after death; its habits are like those of other terns; its flight is elegant and light, but during stormy weather it frequently sits on the ground, and generally facing the wind, in order to avoid having its plumage ruffled. This bird is sociable among its own species, careful of danger, but where it becomes accustomed to the presence of men, it may easily be approached within gunshot, although it is ever shy after having once been fired at.

Its call-note, which it frequently utters, sounds like *creck, creck!* in a high pitch, but not so inharmonious as other terns.



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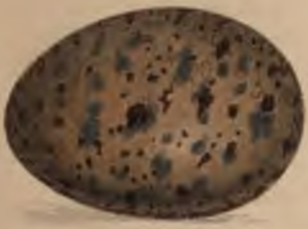

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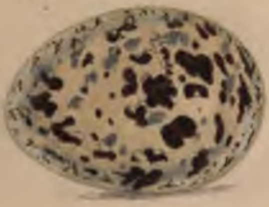

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The food of the Lesser Tern consists in small fry of fish, insects that it finds on and above the surface of the water and the shore, and in some instances the more tender weeds that float on the surface of the ocean. Young broods of shrimps and crabs constitute a great part of its food on the sea-shore.

The present Tern breeds on the sandy sea-shore, and equally so on the sandy and gravelly banks, on the borders of rivers, where it is not likely to be disturbed; the eggs are laid in some natural depression in the ground, but never in clean sand, as the bird is led by instinct to deposit them in the midst of shingle, remains of crustacea, and decayed weeds, for their concealment and safety; they are two or three in number, in shape, size, and colour, as represented in our plate. In a fortnight the young are produced, by the parents sitting alternately on them during the night, and leaving them to the sun's rays during the day. Like other terns, the young of the present species are soon able to fly after their parents, and remain with them during their migrations, their winter sojourn, and their returning passage in the spring; when they pair and have families of their own to look after.

We have obtained specimens of the Black Tern on the Thames at various times; two we shot on the 10th of August, 1841, near Weybridge, and one on the 12th of May, 1842, very near the same spot. This latter specimen we shot out of a flock of about twenty individuals, that came flying up the river against a very strong wind: the bird was only winged; and while floating on the surface of the water was soon visited by one of its companions, who endeavoured apparently to entice the wounded bird to follow it by uttering its plaintive cry, which was repeated by the sufferer. We secured our prey alive, and kept it for several months, feeding it on minnows, and supplying it with plenty of water.

The fellow-feeling and sensibility of the Black Tern above mentioned, are by no means unusual, as it is well known that by leaving one wounded bird of this family (Tern) floating, the greater part of a flock may be shot successively; but our thirst for knowledge was perfectly satisfied by obtaining one specimen, and the flock, after having recovered from the alarm caused by the report of the gun, afforded us by far more delight by exhibiting the beautiful evolutions so peculiar to this interesting species. It has frequently been observed that the Black Tern is so exceedingly quick and dexterous in its flight, that hawks find it generally difficult, if not impossible, to strike one, and are frequently obliged to give up the pursuit.

During the time of migration the Black Tern flies at a great elevation, except where its route lies in the direction of a river's course, in which case it seems to prefer skimming over its surface, we consequently meet with this species almost every spring and autumn, namely, in April, May, and August, in our vicinity; the chief numbers perform their journeys during the night.

When this bird rests on the ground, on some thick muddy flat, which it always prefers to a clean sandy bottom, it carries its head with the neck shortened, its breast lowered, and its body in a horizontal position, with its wings crossed one over the other, and carried considerably above the tail; it seems particularly partial to the neighbourhood of sedges.

Its walking propensities are not great, and it is therefore only under favourable circumstances that one can get a sight of the Black Tern on the ground, and see it trip about for a short distance, either in pursuit of food or in search of materials for its nest during the breeding-season. It is also very rarely seen to swim, an act which it does not perform but from necessity.

Respecting the powers of flight of the Black Tern sufficient has been said; it is only necessary to add, that this bird passes most of its time on the wing, in the manner of the swifts.

The call-note of the Black Tern sounds like the word *kear, kear!* which is uttered in a soft and plaintive manner, and is rather pleasing.

The food of this species consists principally of aquatic insects and their larvæ, small insects that frequent the bogs, the small fry of fish, young frogs, frog-spawn, and worms. During the breeding-season, when the Black Tern has to supply the wants of its young brood, it is very early on the wing in the morning, and may be seen to skim over meadows and cultivated fields, in the same manner as it flies over the surface of the water, and when it meets with a worm or other suitable insect, it settles on the ground for an instant beside its prey, secures it in its beak, and immediately flies away with it; for it is unable to take anything from the surface of the ground while on the wing; when catching a small fish, or a swimming aquatic insect, the bird dips for it, but does not dive; and its aim is unerring.

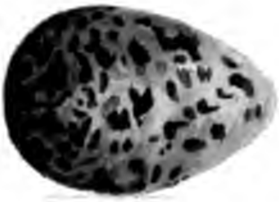
The most inaccessible swamps, moors, or fens, surrounded by or in the vicinity of rushes and flags, are chosen by the Black Tern for the nesting places; but on ponds, lakes, and borders of rivers, where the banks are entirely open and free from rushes, this bird never makes a nest. Great numbers of these birds assemble together in their annual breeding-places, and make their nests at a small distance apart, either on some raised lump of earth, or on a bundle of decayed sedges, and frequently on a foundation formed of the bent stems of rushes, purposely arranged by the bird in order to float the nest.

Many different water-plants are made subservient to their purpose of sustaining the nest, which is so arranged as to be kept above the water; for this purpose the stems of the Euphorbia palustris, and of the Arundo phragmites are often chosen. The nest itself is a compound of decayed rushes and roots, and lined with grasses, but by no means carefully platted or arranged, and forms but a shallow cup for the reception of the eggs.

The eggs are three in number, and are incubated by both birds in turn; and in fifteen or sixteen days the young come forth.

Although met with in many parts of England at the period of migration, namely, in spring and autumn, the Black Tern is rather local in its breeding places, frequenting for the purpose of nidification only those counties which abound most in swamps, marshy lands, and low watery districts; Lincolnshire, parts of Norfolk, Cambridgeshire, &c., are therefore, among its principal localities.

In Tuscany, according to Savi, many thousands of young Black Terns are brought to market for food; but the wings are previously cut off, and being tied up in bundles, are used in the shape of brooms.



295.

The dimensions of one of the specimens before mentioned, killed on the 10th of August, were as follows:—The beak from the forehead to the tip eleven lines; from the gape to the tip one inch four lines; both mandibles very sharp pointed; the nostrils the shape and size of a caraway seed, and pierced through. The entire length of the bird ten inches from the tip of the beak to the extremity of the tail, the wings extending two inches beyond the tail; the outer tail-feathers six lines longer than the middle ones; the wing from the carpus to the tip eight inches, and the primaries four inches longer than the tertials; the expanse of the wings twenty-two inches. The beak in this specimen was black and polished, much compressed laterally, and dark mahogany colour at the base of the under mandible; the inside of the mouth red. The forehead, crown of the head, and nape black; the region of the eyes and a band across the front of the head have the black feathers tipped with white; the eyelids feathered white; extreme ridge of the skin black; the iris is dark brown. The upper plumage from the nape to the tail-coverts dark hoary grey, tinged on the wing-coverts with reddish brown; the tail and upper coverts pale ash grey; the shafts white, the feathers paler beneath. The cheeks and sides of the neck pure white; breast, belly, and flanks ash grey; abdomen and under tail-coverts snowy white, the latter as long as the tail-feathers; under wing-coverts and shafts of the quills above and below white; the first quill the longest. The legs and feet brownish coral red; claws black, very sharp and hollow beneath; the toes webbed between. We believe this specimen to have been an adult bird just assuming its winter dress.

Our figure represents the adult male bird in summer plumage, in which state the head, neck, breast, and belly, are dark lead grey, deepening to almost black about the head;

the beak is black, with a tinge of crimson at the base; the legs and feet deep reddish brown; the back, scapulars, wings, and tail are slate-colour, the quills bordered with a lighter shade; the under-coverts of the tail and the vent are white. The adult female nearly resembles the male, but a few touches of white beneath the chin and a lighter slate colour upon the back distinguish her.

The egg figured 295 is that of the Black Tern.

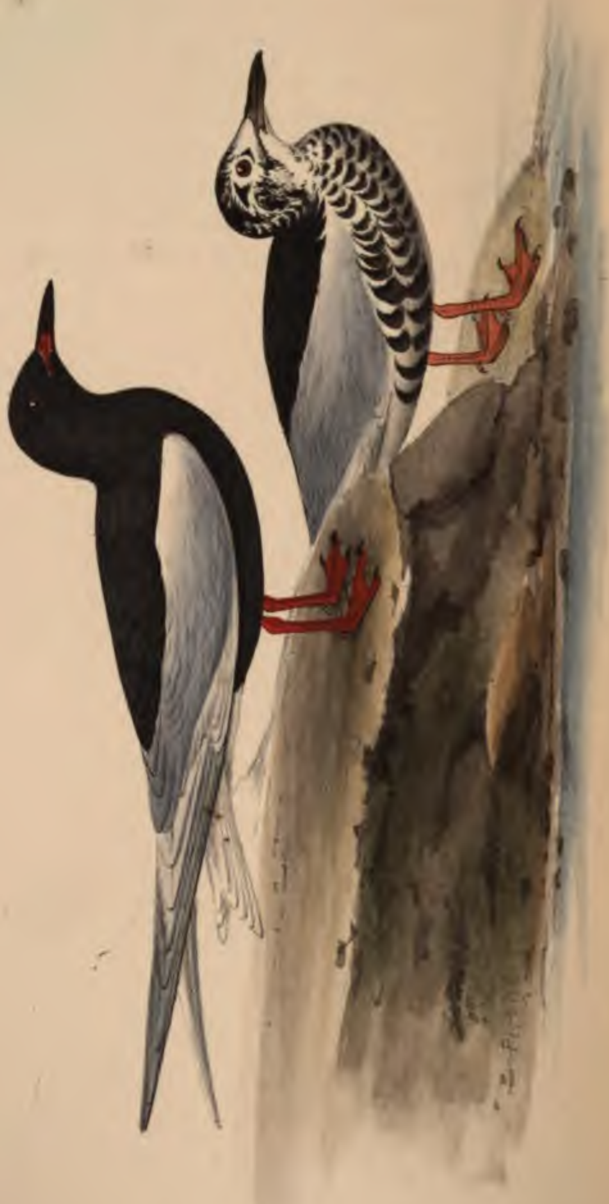


PLATE CCXCVI.

SILVER-WINGED BLACK TERN.

STERNA LEUCOPTERA.

THE Silver-winged Black Tern has only very lately been added to the list of British Birds, in consequence of two specimens that were shot on the Shannon in 1841; which specimens are now in the Museum of the Natural History Society of Dublin.

It is possible that this species has been occasionally overlooked by the common sportsman, but it differs so very much in appearance from the Sterna nigra, that no ornithologist who makes use of his eyes could for a single moment mistake it.

The European countries in which the present species is known to pass some months in the year, are principally Hungary, Spain, Italy, and Switzerland; they arrive in the month of May, associated with the Black Tern, and disappear in July and August.

The numbers are everywhere small, and it is consequently by no means wonderful that their habits have escaped the notice of many persons; but we must express some surprise that Temminck should not have given more particulars of this bird, and that he should be unacquainted with its winter plumage, and the particulars of its nidification.

The locality chosen by the Silver-winged species, agrees perfectly with that of the black tern; it breeds in the same kind of spots, and its nest is in every respect the same in formation and deposition; the eggs only differ in size and colour; the number of eggs is generally three, but sometimes four, their size fourteen lines by eleven, and more circular than egg-shaped; their ground colour is dull olive yellow, with many greyish brown spots, also reddish black spots of larger size, but less than those that appear on the egg of the black tern. The male and female incubate the eggs by turns, and are very watchful over them, flying at dogs or men on their approach to the nest, and continuing to hover over them till they have left their immediate vicinity.

At other times the present species is by far more shy than the black tern, also greatly quicker on the wing, and consequently not easily shot, which may in some measure account for the few specimens obtained hitherto.

The best means of killing one of the present species is by using a double-barrelled gun; when, after shooting one of the black terns, an opportunity may be obtained of getting one of the Silver-winged species within shot when it comes to the intended aid of the wounded bird.

The food consists in insects, dragon-flies, and the small fry of fish.

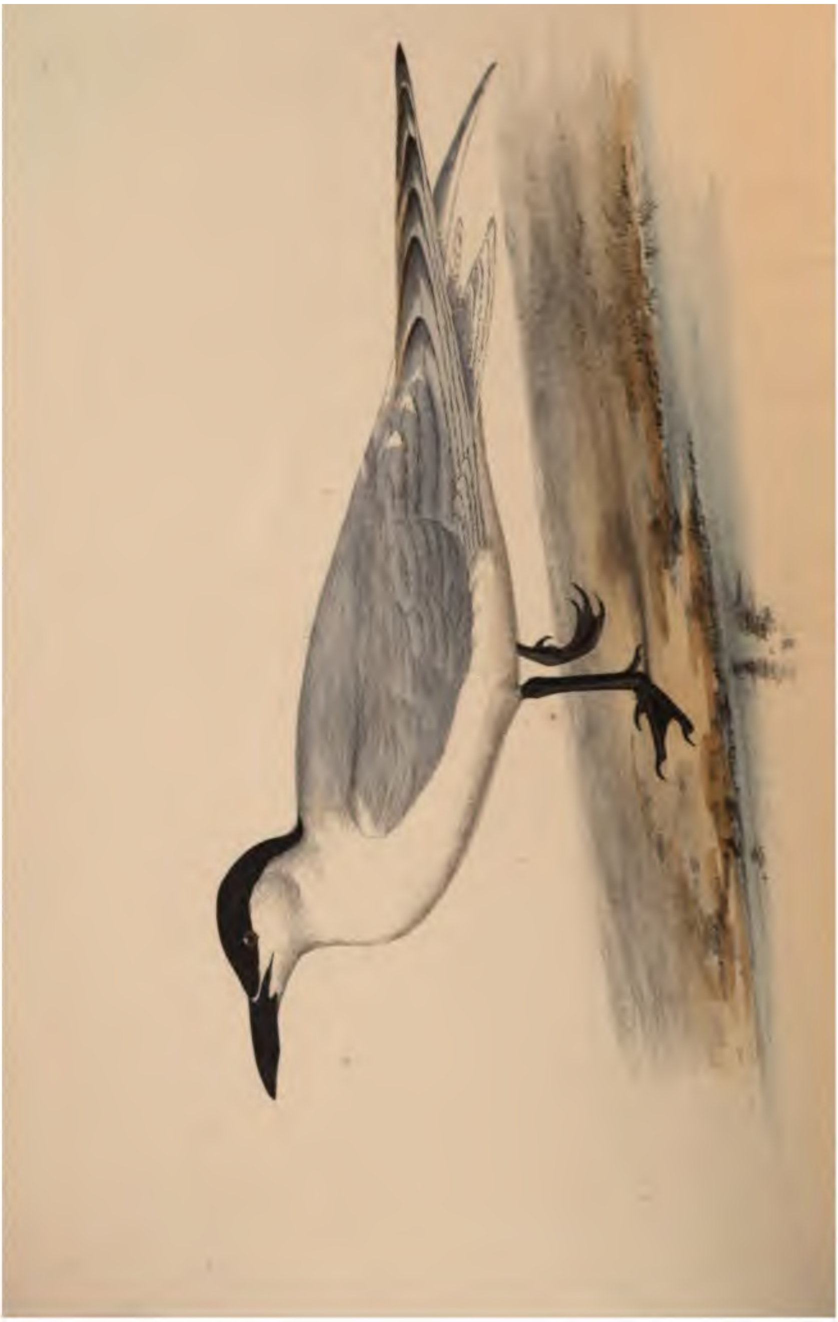
The entire length of the adult bird of this species is nearly nine inches, the expanse twenty-four and a half inches; the wing from the carpus to the tip eight inches eight lines; the outer tail-feather full three inches; the tips of the wings reach about three inches beyond the tip of the tail when they are closed. The beak, which is shorter and stouter at the base than in the Sterna nigra, measures one inch from the forehead to the tip. The legs and feet are larger than those of the foregoing species; the naked part of the tibia is five lines long; the tarsi ten lines; the middle toe, including the claw, one inch, and the hinder toe, including the claw, four lines.

The summer plumage of the adult bird is very handsome: the head, neck, back, breast, and belly, nearly as far as the abdomen, are pure black, as also the under wing-coverts; the plumage of the head and neck reflect a green silky gloss. The edge of the wing is white; the lesser wing-coverts are nearly white, which colour deepens into pearl grey further down the wing, and the grey becomes more and more decided until it loses itself in the deep slate colour of the tertials; the quill-feathers are cinereous ash colour, darkest at the tips and outer web of the first quill, which is the longest feather in the wing: the rump, vent, upper and under tail-coverts and tail are pure white. The male and female are alike. Beak dusky black, red at the base and gape; the legs and feet coral red; the iris brown.

The moult in summer begins in July and the beginning of August, wherefore a few may be seen in their chequered garb before they leave their breeding localities.

The plumage of the summer moult is as follows:—The chin is white; the head and all the under plumage white, with black tips to the feathers on the top of the head, nape, cheeks, and ear-coverts, producing a very chequered appearance; the space between the beak and eye, and the region of the eye, white; the breast and belly appear barred with black and white, owing to the broad black edges of the feathers; the upper part of the back is black; the wings, tail, vent, and tail-coverts as in summer, but the grey on the wings and tertials is darker; the beak is dusky black, with a livid colour at the base, and the legs and feet are dull coral red.

In the winter plumage, the front of the face, neck, breast, and all the under parts are white; before the eye is a crescent-shaped black mark; the top of the head, nape, and ear-coverts are spotted with black, owing to the centres of the feathers being black, bordered with pale wood brown and pale grey; the back and wing-coverts are deep gull-grey; the upper part of the back ornamented with a small portion of black between the shoulders; the ridge of the wing is white, and the smaller rows of wing-coverts spotted like the top of the head. The primary quills are greyish black or slate colour, the tips of some are soiled white; the tertials pale gull-grey; the tail and coverts as in the summer. The legs and feet are orange yellow; the eyes dusky brown.



The adult bird measures thirteen inches and a half in length; the beak one inch and a half from the forehead; the tarsus one inch three lines; the wing nearly fourteen inches; the outer tail-feathers five inches; the middle tail-feathers four inches, three to four lines. In summer the beak is black, and six lines deep at its base, and the angle on the lower mandible by far more abrupt than in that of the terns in general. The iris is dark brown; the legs and feet are reddish black. The forehead, crown, and nape are black; the feathers silky and rather elongated; on the top of the head there are always a few feathers with white edges. The upper plumage is pale bluish gull-grey; the quill-feathers are blackish or hoary grey, the tips of the first five feathers are black; the chin, throat, neck, breast, and all the under parts are white. The claws of this bird are very long and straight.

The winter plumage has the forehead and crown white; a spot before the eye, and behind the ear-coverts of greyish black; the rest of the plumage as in summer, but the black tips of the quill-feathers are not so deeply coloured.

PLATE CCXCVIII.

BLACK NODDY.

STERNA STOLIDA.

THE Black Noddy has only very lately been added to the list of British Birds, in consequence of two specimens that were captured on the eastern coast of Ireland. This bird is, therefore, to be considered as a rare occasional visitant.

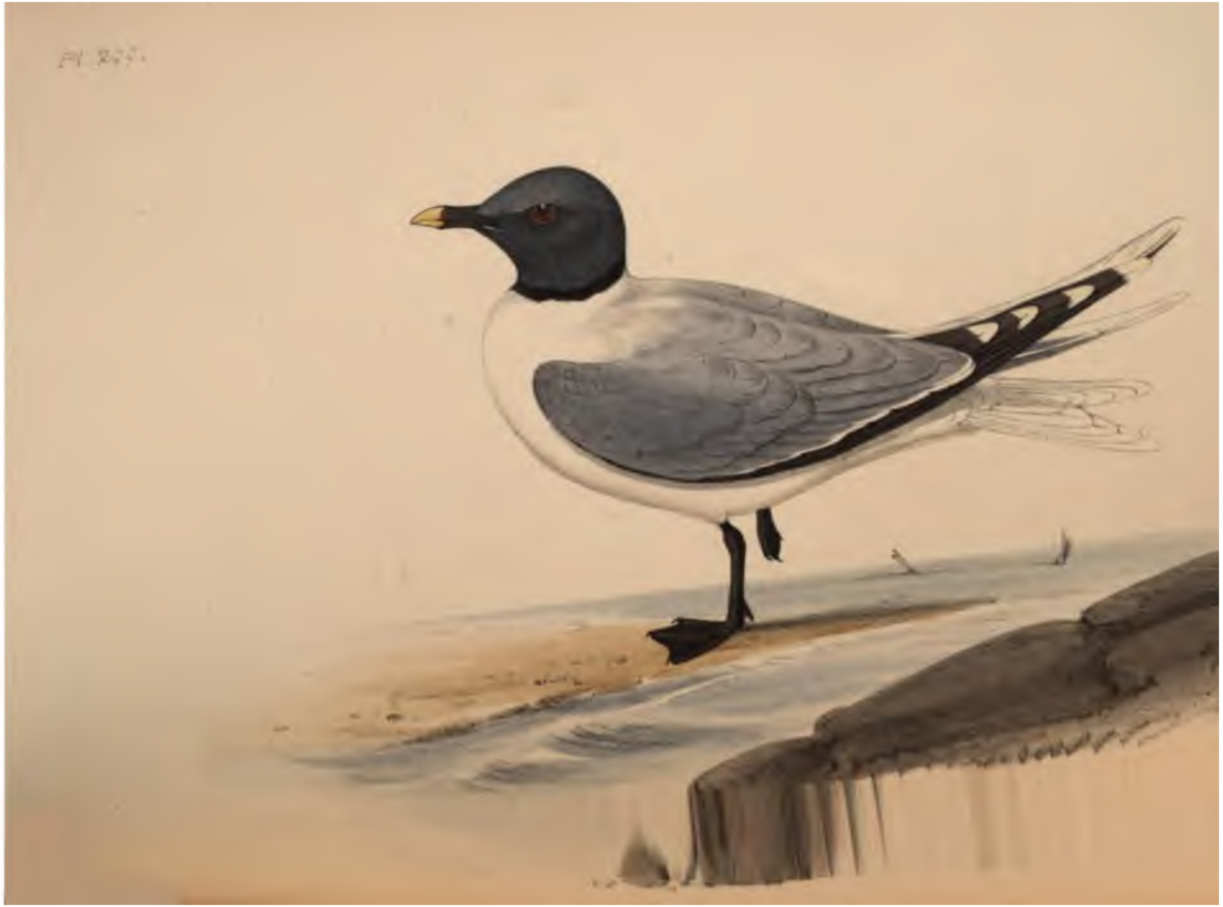
The countries in which this species chiefly resides, are the Gulf of Mexico, the shores of Florida, and the Bahama Isles. The entire coast of America is periodically visited by it, from whence it occasionally reaches the western shores of Europe; mariners not unfrequently make acquaintance with this bird, by meeting it on the open sea.

The food of the Black Noddy consists of small fish and aquatic insects, which it catches by skimming over the watery surface, and dipping for them in the manner of other terns.

The before-named parts of Mexico, Florida, and the Bahama Isles, are annually visited by this bird for the purpose of breeding; it chooses either weedy banks, low trees, or bare rocks, for a nesting-place, and deposits three warm coloured yellow eggs spotted with reddish and purple spots.

The adult Black Noddy measures fifteen inches in lengt the beak from the forehead one inch and three quarters; t wing from the carpus to the tip ten inches; the tarsus nea one inch, and the tail five inches.

The plumage is as follows:—the forehead is white; t top of the head pearl grey, and the nape ash colour; th three colours gradually melting together; the neck a shoulders are black, with a grey bloom; the rest of the up feathering chocolate brown; the tail is rounded at its e tremity, the middle feathers being the longest; the e dusky; the beak black; the legs and feet black; the t united by an entire web.



Pl. 247.

PLATE CCXCIX.

SABINE'S GULL.

LARUS SABINI.

THIS Gull is of so rare occurrence in Great Britain, that we figure and describe it in order to enable our subscribers to compare notes if they should be so fortunate as to obtain a British killed specimen.

The only specimens obtained in Britain, are two birds in the plumage of the first year, that were killed on the coast of Ireland, and may be seen in the museums of the Natural History Society of Belfast, and the Royal Society of Dublin.

Sabine's Gull inhabits the countries situated in and about the Arctic circle, and only descends accidentally as far as our latitudes. In Greenland and Melville Island this bird is numerous, and it was in the former country that it was observed by Captain Sabine, whose name it bears.

One specimen is mentioned as having been captured near Rouen, one on the borders of the Rhine, and another on the coast of Holland; this latter was a young bird.

The food of this species consist in marine insects, which it obtains chiefly by searching the sea-shores during low-water.

The breeding-localities of this species are the same as those of the Arctic tern, in whose company it is met with on the coast of Greenland.

The eggs, three in number, are deposited on the ground; they are said to be of an olive ground colour, numerously spotted with brown.

The measurements of Sabine's Gull are as follows:—entire length thirteen inches: the beak from the forehead one inch; the tarsus one inch and a half; the tail five inches; the wings when extended thirty-three inches.

The adult bird in summer has the entire head lead colour, which colour is abruptly terminated by a band of deep black; the upper plumage is deep gull grey; the ridge of the wing and the extremities of the secondaries are white; the primary quill-feathers are black, with very conspicuous white tips; the lower part of the neck, the breast, and all the under parts pure white, including the tail, which is much forked; the beak is black with a yellow tip; the legs and feet black; the iris deep sepia; the eyelid and the inside of the mouth bright red.

The young of the year have the head white, with blackish spots; the scapulars and wing-coverts are blackish grey, intermixed with yellowish brown; the neck and breast are pale ash colour; the belly and upper and under tail-coverts are white; the tail not so much forked as in the adult, and of a soiled white, with black

PLATE CCC.

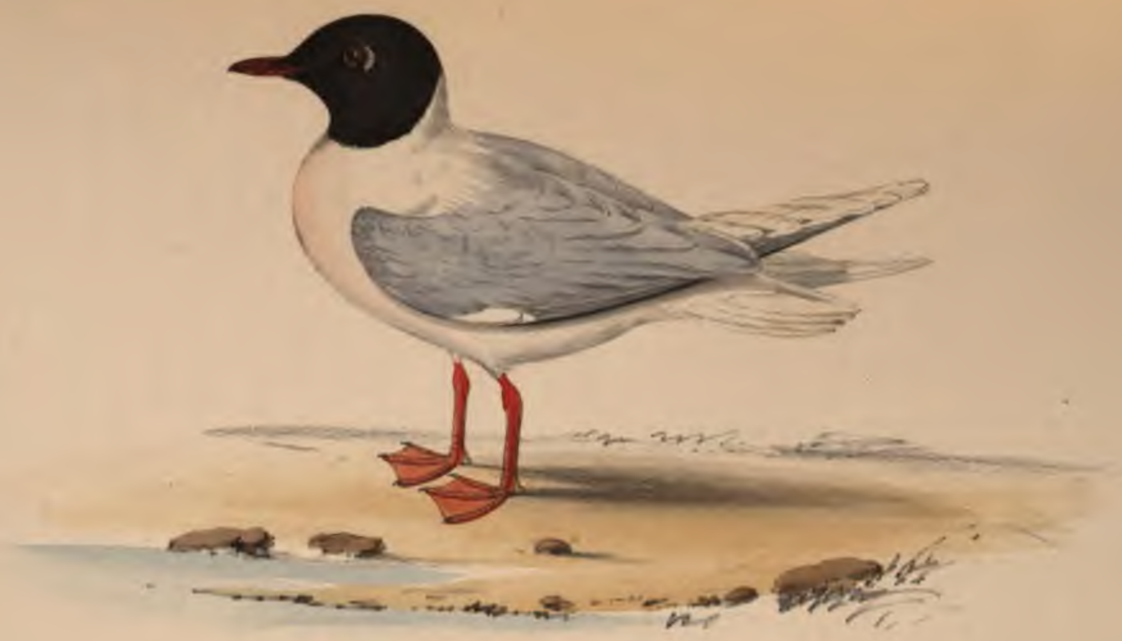
LITTLE GULL.

LARUS MINUTUS.

The Little Gull is an occasional visitant in Great Britain, and is thus named in consequence of its being the smallest of all the Gull tribe.

The geographical distribution of this species extends over the eastern parts of Europe and many parts of Central Asia. In Tartary and the southern parts of Siberia it is very common; on the borders of the Caspian Sea and the Wolga it is numerous, but less so about the Black Sea. In North America it occurs also, but only occasionally. In Europe it principally inhabits the southern provinces of Russia, Turkey, Hungary, and Italy; in the Northern Ocean and the Baltic it has been met with in divers places between Liefland and the coast of Holland. The present species is not often seen on the sea-shores, unless the spots are bays or mouths of large rivers; inland lakes, ponds, and rivers, seem to suit the habits of the Little Gull in preference.

In what countries this bird breeds is not yet known, and



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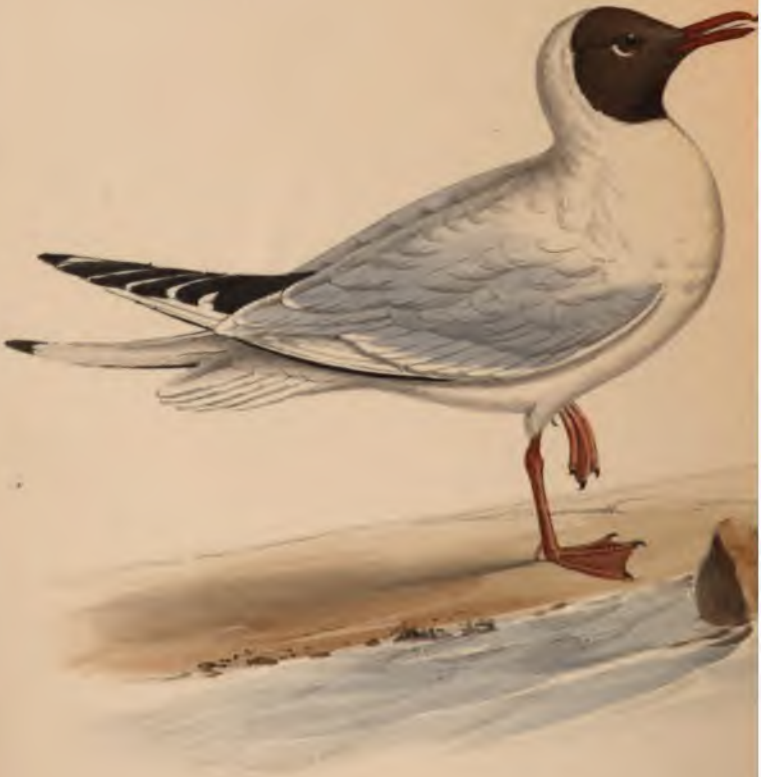


PL 301.

PLATE CCCI.

BROWN-HEADED GULL.

LARUS CAPISTRATUS.

THE Brown-headed Gull is a rare occasional visitant in Great Britain; it is more frequently found in the Orkneys, but is not exclusively confined to that northern region, as we are informed that a specimen of this species was killed near Bangor, another in the vicinity of Belfast, and others in several different parts of the United Kingdom. M. Temminck has the credit of having distinguished this species from the pewit gull (*Larus ridibundus*), and, on examination, it is easily to be perceived that this elegant sea-bird has every claim to a separate position in the list of British birds.

We are informed that the present species is more frequently met with in the Arctic regions than elsewhere, and M. Temminck says that the specimens received from Baffin's Bay and Davis' Straits differ in no way from our Brown-headed Gull; and that author speaks also of a specimen that was captured in Liguria, and is now preserved in the collection of the Marquis of Durazzo, in Italy.

PLATE CCCII.

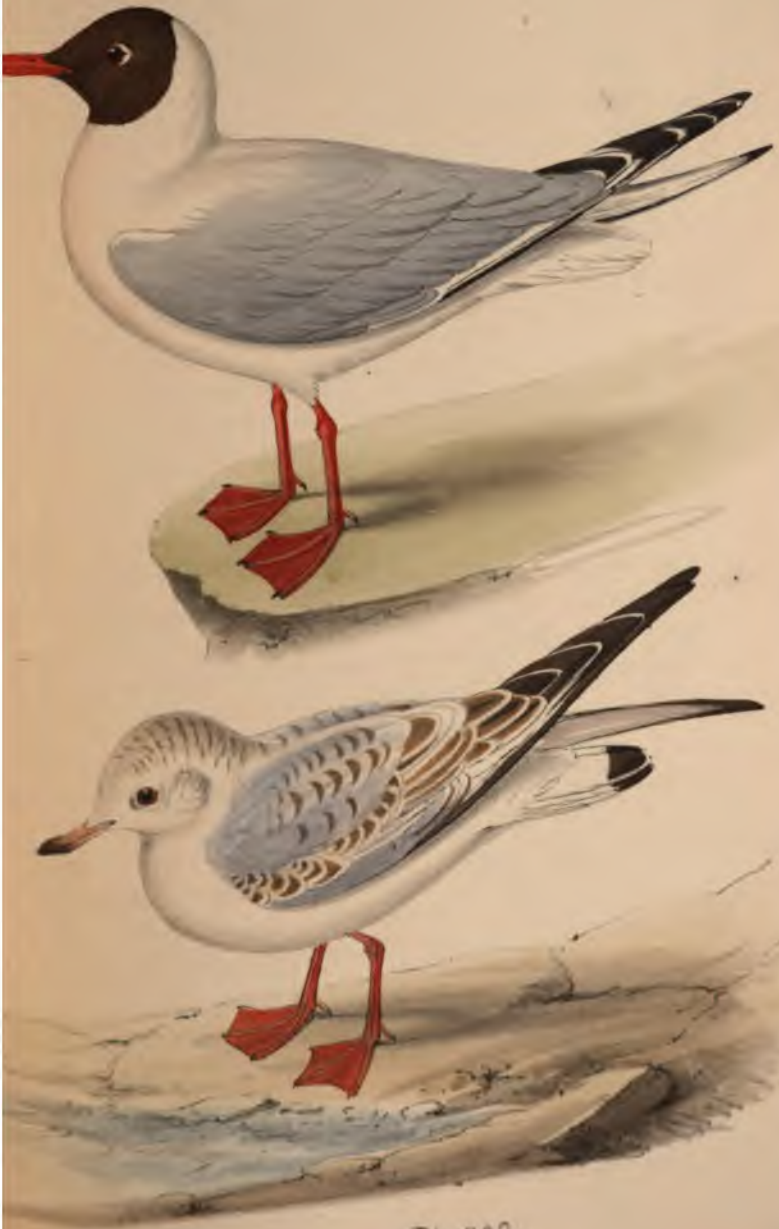
PEWIT GULL.

LARUS RIDIBUNDUS.

The Pewit Gull is one of the most numerous of the gull species on the coast of Great Britain during the winter months, retiring to lakes and marshes of the interior in the spring of the year for the purpose of breeding; at which period it frequents the most reedy and marshy fens, and the margin of waters of all descriptions. The geographical distribution of this species extends over the northern half of our globe, but it is remarkable that it does not range so far north in Europe as Iceland, Norway, and northern Sweden; while in America it is commonly found in Greenland, Davis' Straits, and Baffin's Bay; in Asia it is frequent in the Ural districts, and also in Syria and Arabia; in Africa it inhabits most of the northern parts, particularly Egypt.

In almost every country of Europe the Pewit Gull is the most numerous of the gull species, frequenting the sea-shores and mouths of large rivers during the winter, and the lakes, marshes, rivers and ponds in the spring and summer months.

We retain for this bird the name of Pewit Gull, one of



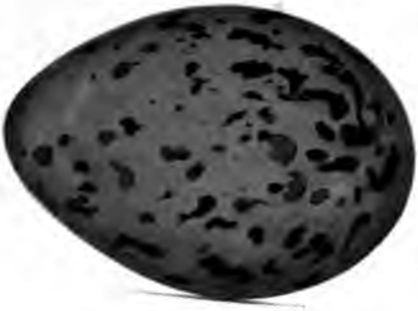
Pl 302.

its provincial designations, in order to distinguish it from other dark-headed gulls; many ornithologists give it the name of Black-headed Gull, which is not applicable, as the colour of its head is never black, but dark brown.

The chosen locality of the Pewit Gull is a flat, swampy sea-shore, or the equally wet and boggy swamps or islands in lakes and fenny districts, either near the sea coast or many miles away from the sea. Many hundreds breed on the low islands of our southern coast, as well as on equally suitable parts of the entire coast of England and Ireland; and where the nature of the Scottish coast invites it, by being flat, low and marshy. In Norfolk there is a favourite, low, wet and boggy island on Scoulton Mere, where the Pewit Gull is known to congregate every year in immense numbers for the purpose of breeding. Mr. Selby mentions a large pond at Pallinsburn in Northumberland which is annually visited for the same purpose by the Pewit Gull, and there is no doubt that many other localities might be enumerated to which the present species retires, and which it would regularly revisit, provided it were not disturbed or scared away by idle sportsmen, who destroy all that comes before them, without considering the extensive value such annual visitors would be to the agriculturists of the neighbourhood, if they were allowed the possession of undisturbed peace and quiet.

The food of the Pewit Gull consists of worms, slugs, winged aquatic insects, the well-fed grubs of cockchafers, as well as the developed beetle, and other coleopterous insects; their presence, therefore, in any country which they regularly visit in the spring of the year, must necessarily lessen the number of these plagues, and tormentors, by which farmers in many districts are so much molested; especially as these birds are known to follow the plough in the same manner as rooks. At the time when this species frequents white, with a dusky crescent-shaped spot before the eye, and a brown spot on the cheeks ; the top of the head, nape, and scapulars, are pale greyish ash, with yellowish brown half-moon shaped spots ; the secondaries and the tertials are yellowish brown in the centre, and edged with white ; part of the wing-coverts are brown with white edges, and part cinereous grey ; the tip of the tail dusky ; the quill feathers greyish white with dusky tips, and the two first feathers in the wing dusky on the outer web ; the beak and legs are tile red ; the beak has a dusky tip to both mandibles.

The egg figured 302 is that of the Pewit Gull.



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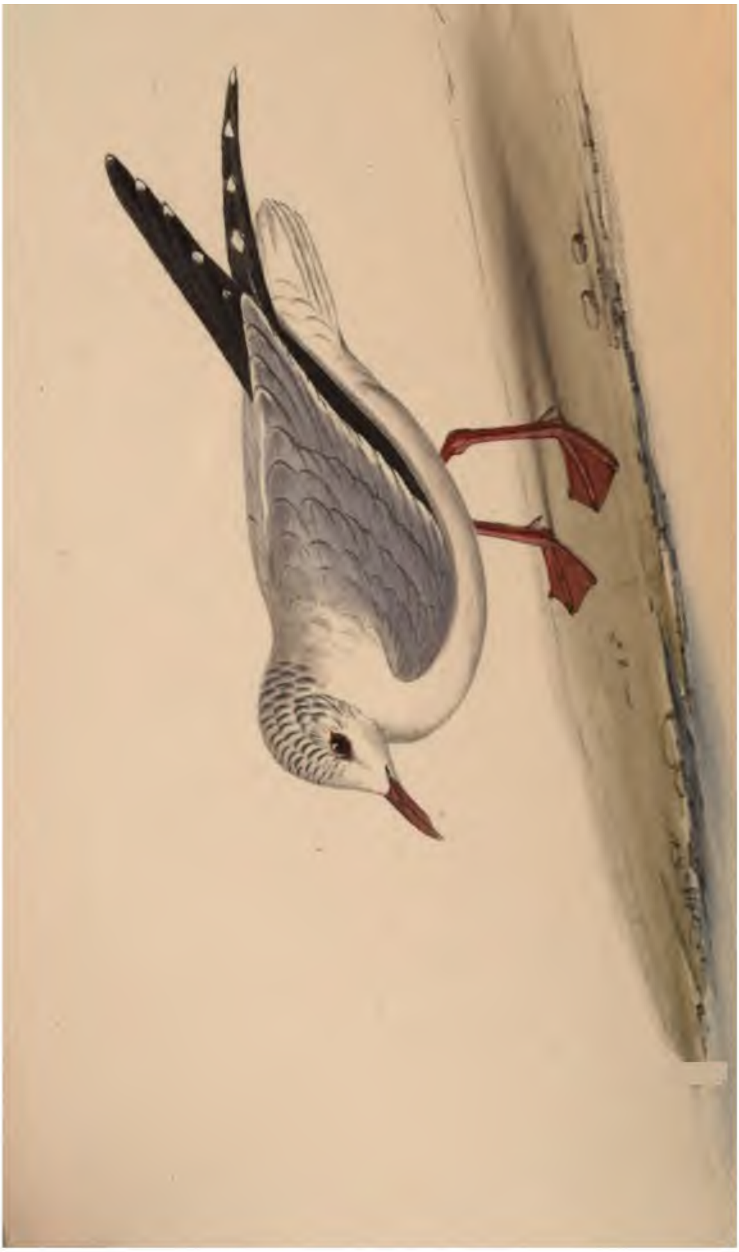


at night, leaving the breeding-place early in the morning for the purpose of feeding; but when the weather is wet or cold it remains on the eggs and takes care of them also during the day: most probably the male and female perform this duty by turns.

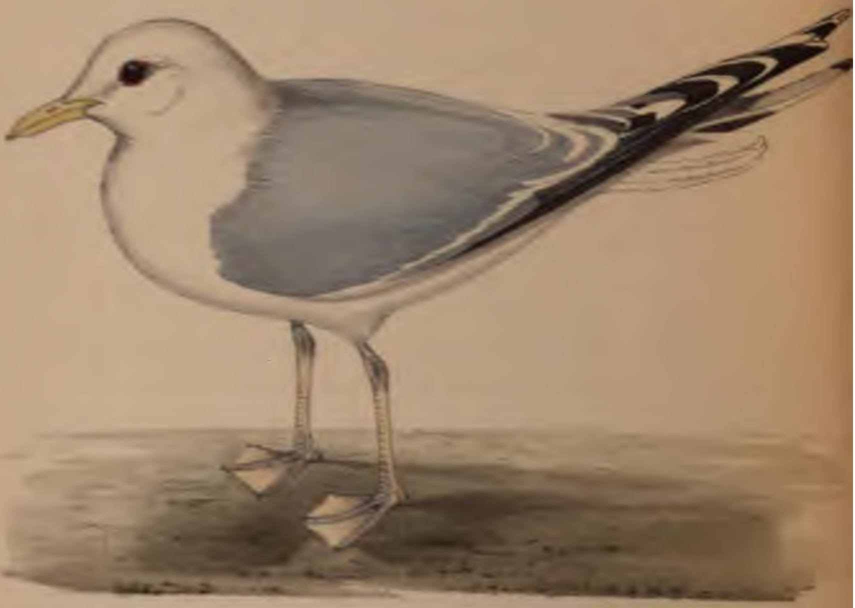
The food of the Laughing Gull consists principally in insects, small fish, and crustacea.

The Laughing Gull measures eighteen inches in length.

In summer the adult bird has the head and upper part of the neck lead colour; the lower part of the neck, and all the under parts white, with a tinge of red in the living bird, but in stuffed specimens this tinge or bloom disappears entirely; the back, scapulars, and wing coverts are bluish grey; the secondaries have white tips. The quill-feathers are slate-colour at the base and inner webs, and black at their tips, with a white spot at the extreme point. The beak, legs, and feet are brownish red; the eyes dark brown.

The winter plumage, according to Temminck, is as follows: the forehead, top of the head, throat, and all the under parts pure white; before the eye is a crescent-shaped spot of blackish grey—this mixed cinereous tint covers also the occiput, the hinder part of the nape, and the ear-coverts; the flanks are slightly tinged with cinereous ash-colour; the back and scapulars deep bluish ash; the secondaries broadly edged with white; the primaries black, with a white tip.

Our plate was drawn from Montagu's specimen in the British Museum, and differs only from the winter plumage described by Temminck, in having the blackish grey on the occiput, nape, and ear-coverts, interspersed with white.



PL. 304.

PLATE CCCIV

COMMON GULL.

LARUS CANUS.

THE present species is so well known to every one who has seen the ocean that we wish only to remark that it is more numerous in some parts of the British coast than in others, according to the more or less favourable state of the locality.

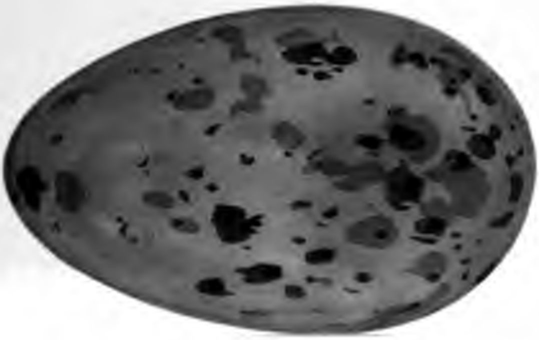
The geographical distribution of this bird is very great; during the summer months it extends as far as the Arctic Regions of Europe, Asia, and America; and on the approach of winter, it migrates to the south, spreading its numbers along the coast of a large portion of the temperate parts of the globe.

The locality preferred by the Common Gull is the sea-shore, where the bottom is sandy or shingly, and the water consequently clear; under certain circumstances this Gull is met with by the river side, or on the borders of lakes, and other inland waters; but as soon as the rising of the water, or the occurrence of heavy rain lessens its trans-

The adult in winter has the beak yellow at the tip, and blue at the base; the eye brown; the eyelids crimson; the legs and feet yellow; the joints blue, and the webs bluish; the head and all the under plumage white, with very fine dusky streaks on the occiput, nape, and back of the head, as also before and below the eyes; the entire upper plumage gull-grey with a white border to the wing, greater wing-coverts, and tertials; the tail pure white. The primary quills black; the first two have a spot of white across the ends, but the tips are black, the rest are tipped with white; the secondaries are gull-grey, tipped with white.

In summer plumage the beak of the adult bird is yellow; the legs and feet livid yellow, with blue joints; the eyes brown, and the eyelids and corners of the gape bright red. The back, scapulars, and all the upper plumage the same as the adult in winter; the head, neck, breast, belly, vent, and tail white; the breast and belly tinged with salmon red.

The egg figured 304 is that of the Common Gull.



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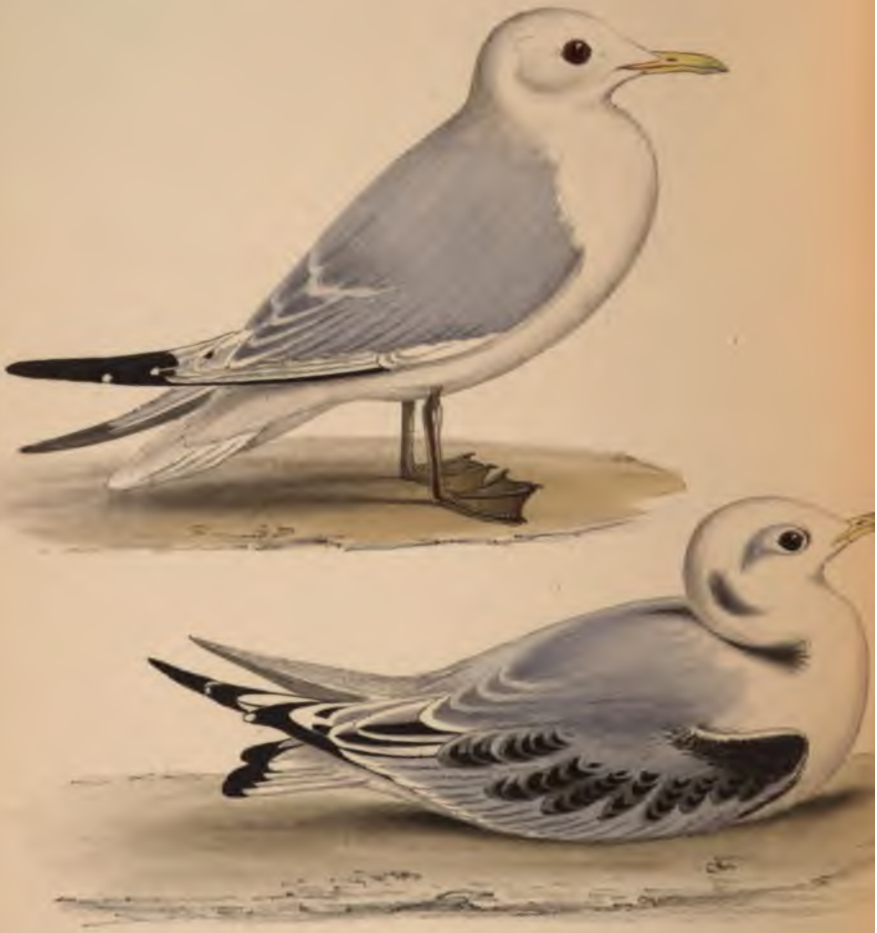

Pl. 305.

PLATE CCCV.

KITTIWAKE.

LARUS RISSA.

The Kittiwake is considered a summer visitant by some authors, and by others it has been said to remain throughout the year on the coasts of Great Britain. It has positively been ascertained, however, that this bird does not only breed on every rocky coast of the United Kingdom, but we have the most undoubted proofs of its being met with in England throughout the year.

During the time that we were publishing our quarto edition of the present work, we obtained an adult bird in perfect winter plumage alive, on the 19th of January, 1837, and an immature bird in the first winter plumage, on the 22nd of February, also alive. We resided at that time at Esher, in Surrey: these birds were captured in the neighbourhood of the Thames; from these two living specimens our drawings for the quarto work were made.

The geographical range of the Kittiwake is very extensive; during the summer months it extends to very high northern latitudes, where it also breeds; among others, we can enu-

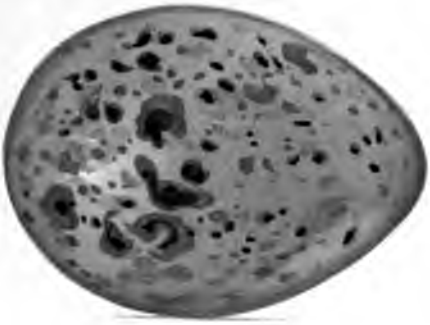

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PLATE CCCVI.

IVORY GULL.

LARUS EBURNEUS.

The Ivory Gull is a rare occasional winter visitant in the northern parts of Great Britain, its regular abode is in the highest northern latitudes, extending even beyond the highest parts to which travellers have penetrated. During the summer months this species inhabits the borders of the Icy Sea, Spitzbergen, Bering's Straits, Baffin's Bay, the northern parts of Greenland, and Labrador. In America it extends from Hudson's Bay further south than in Europe and Asia, since it comes to the northern parts of the United States.

The chosen localities of the Ivory Gull are lofty icebergs and rocky shores, where it also breeds, but we are unable to say much on this subject, beyond the statements generally received, that great numbers of Ivory Gulls breed in the highest latitudes, making a nest of sea-weeds on the bare rocks, during the nominal summer of these unfriendly regions; and that the number of eggs in a nest consists of two or three; these are olive-coloured, spotted with brown, and the

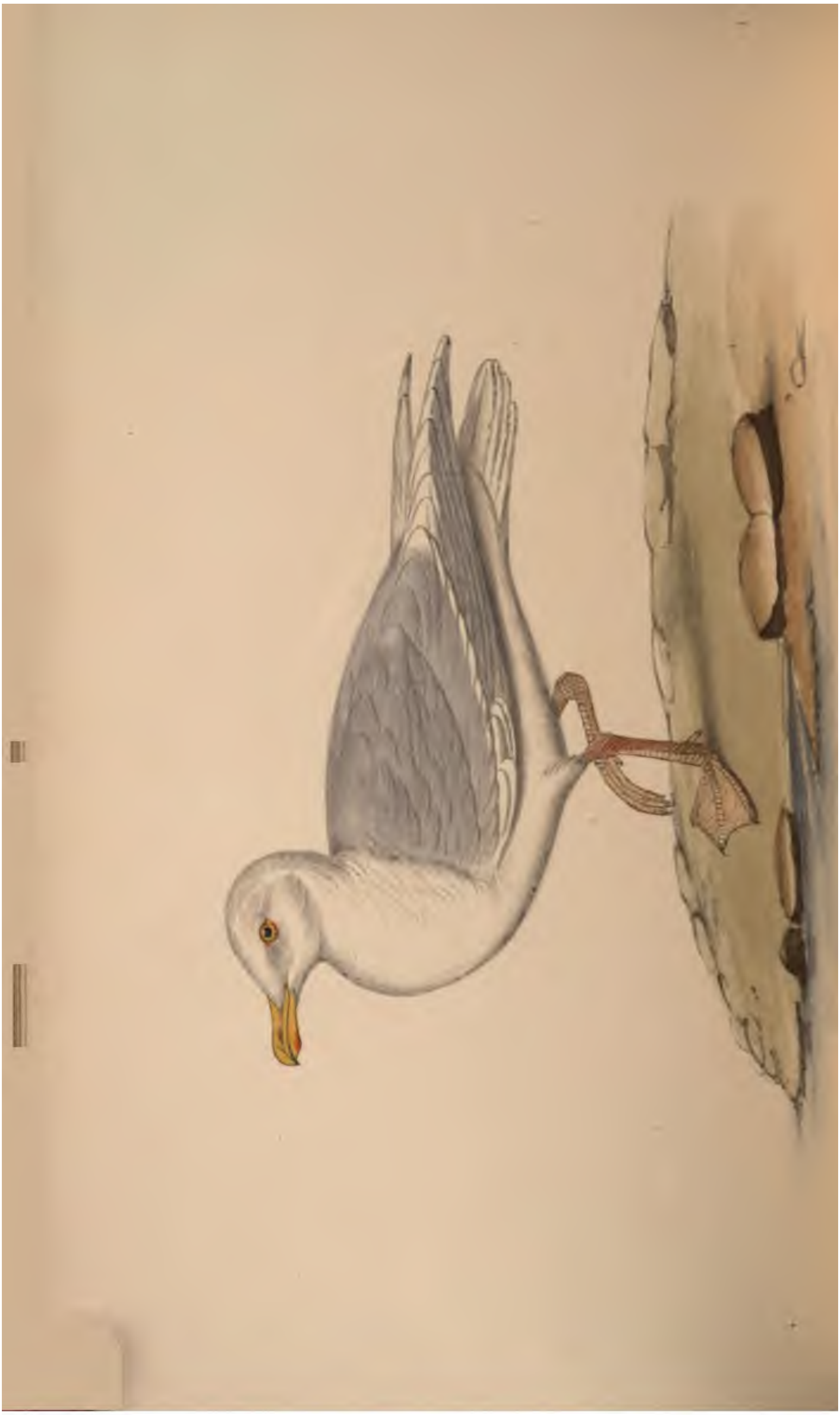


PLATE CCCVII.

GLAUCUS GULL.

LARUS GLAUCUS.

The present species is a winter visitant in the Shetland Islands, arriving in the month of October from more northern regions, and departing again in April. Some instances have been mentioned of its occurrence in the southern parts of Britain, but these have generally proved to be young birds in immature states of plumage.

The Glaucus Gull is a regular inhabitant of the most northern countries of the globe, and frequently associates with the ivory gull.

In Spitzbergen, Greenland, and Norway, both species assemble every summer, and are found to breed on the most isolated cliffs that bound those coasts, or on rocks that stand in the open sea. M. Faber, who has explored those northern regions, mentions the western coast of Iceland as being the most southern spot where the Glaucus Gull breeds, and where it may be seen annually by hundreds. In Iceland, however, the ivory gull is not met with.

In the beginning of April the adult birds of the Glaucus Gull arrive in Iceland and resort to the narrowest inlets on the coast; the young and immature also arrive at that period, but do not frequent the same places, nor are they suffered to keep company with the former. Parties, numbering from ten to twenty, make their arrangements for breeding in a favourite spot, and invariably on the highest shelves of the rocks; the nests are composed of sea-weeds, marine herbage, and dry sticks, and are generally lined with dry grasses; their diameter frequently exceeds two feet, their depth is six inches, and their construction shows want of care, but is nevertheless tolerably strong.

In the month of May the female deposits her two or three eggs, which resemble those of the great black-backed gull, and are said to differ from the latter only in being more of an olive green when in a fresh state. After four weeks' incubation the young appear in their downy garb, and by the end of July they are sufficiently fledged to leave the nest.

The parent birds feed their nestlings with fish and other marine productions, besides which they are supplied with the eggs and young of other species of birds.

The food of the Glaucus Gull consists of fish, offal, carrion, and smaller water-birds, all of which it devours with a voracious appetite.

The habits of this bird differ from those of other gulls, in being less alert and noisy, although it is capable of exertion when hunger or danger presses.

In consequence of its shyness the Glaucus Gull is not easily approached within gun-shot, but fishermen may generally capture them by baiting a hook with some offal, on account of the constant gluttony of their appetite.

The Glaucus Gull in the adult state measures from two feet four to two feet nine inches; the wing from the carpus to the tip nineteen inches; the beak from the forehead three inches.

The plumage of the adult bird has the back, wing-coverts, and bases of the quill-feathers, pale sky blue, the rest pure white, including a portion of the quill-feathers; the beak is pale lemon yellow, with reddish orange on the angle of the lower mandible; the legs and feet flesh red; the eyelids orange; the eyes pale yellow.

The winter plumage of the adult bird differs in having the white head and neck streaked with pale clove brown; the back, wing-coverts, and basal parts of the quill-feathers pearl grey.

The young bird has the entire plumage greyish white, with a tinge of brown, and barred and spotted with purplish brown; the tail is spotted with pale brown; the quill-feathers greyish white; their shafts all white; the beak is flesh colour at the base, and dusky at the tip; the legs and feet flesh colour.

After the second moult the plumage approaches nearer to white, and the markings become smaller and paler. In the second year the blue appears on the back and wing-coverts, and by the third year the bird attains its perfect adult appearance, as represented in the Plate.

PLATE CCCVIII.

ICELAND GULL.

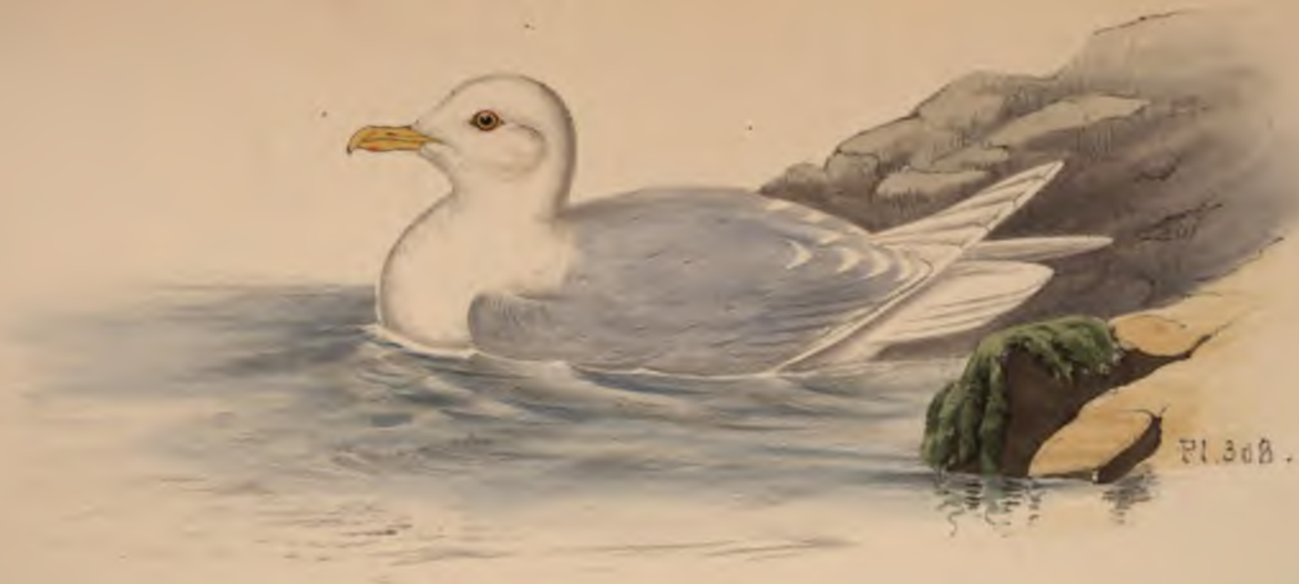
LARUS ISLANDICUS.

The Iceland Gull, which resembles the last-described species in many respects, and has consequently been frequently mistaken for that species, is a winter visitant in Great Britain, but seems chiefly confined to the Shetland Islands.

Like the glaucus gull, the Iceland Gull is an inhabitant of the cold northern regions of our globe, but is more frequently met with on the western coast of Greenland, Baffin's Bay, and Iceland, than in an eastern direction.

During the summer months the Iceland Gull frequents the highest northern shores for the purposes of breeding, and in the winter seeks the more sheltered inlets of Iceland, the northern provinces of the United States of America, and our shores.

The present species is a decided inhabitant of the sea, where it is either seen following the track of the large sea fishes, herrings, &c., or resting on projecting rocks or floating



Pl. 308.

icebergs. As these birds are not shy, but rather sociable and easily tamed, they sometimes attach themselves to parties of fishing boats, in order to pick up any offal or dead fish that the sailors throw overboard. In saying that the Iceland Gull follows the shoals of large sea-fishes, we wish to add that it does so in order to obtain the smaller fishes that are driven near the surface by their finny pursuers; the herrings are a sufficiently attractive prey in themselves. Although the principal food of the Iceland Gull consists in fish, this bird also consumes the entrails of dead marine animals, crustacea, and mollusca.

The reproduction of this species takes place in high northern latitudes, and the localities are said to be the same as those frequented by the glaucus gull. In Iceland it is not known to breed; neither nests nor eggs having been found there by any naturalist that we have heard of. On the shores of Greenland, about the same latitude as Iceland, we are informed that this gull breeds, and the nests are found there invariably in parties, but not singly; the eggs are two or three in a nest, resembling those of the black-backed gull.

The Iceland Gull measures twenty-two inches in length; the beak from the forehead to the tip two inches; the tarsus two inches three lines. This bird is consequently much smaller than the glaucus gull.

The adult male in summer has the head, neck, and all the under parts pure white, the entire quill-feathers also white; the back and wing-coverts are pale ash grey; the tips of the tertials and greater wing-coverts white; the beak yellow, with a red spot on the under mandible, and a deeper yellow tinge on the tip and gape; the eyes are yellow; the eyelids red; the legs and feet are flesh red.

The winter plumage differs in having the top of the head and back of the neck, as well as the ear-coverts, finely spotted with pale brown.

The plumage of the female in the second year is white, spotted all over with yellowish brown, in consequence of each feather having a central mark of that colour; these markings are strongest on the tertials, quill-feathers, and tail, and very faint on the breast, belly and vent.

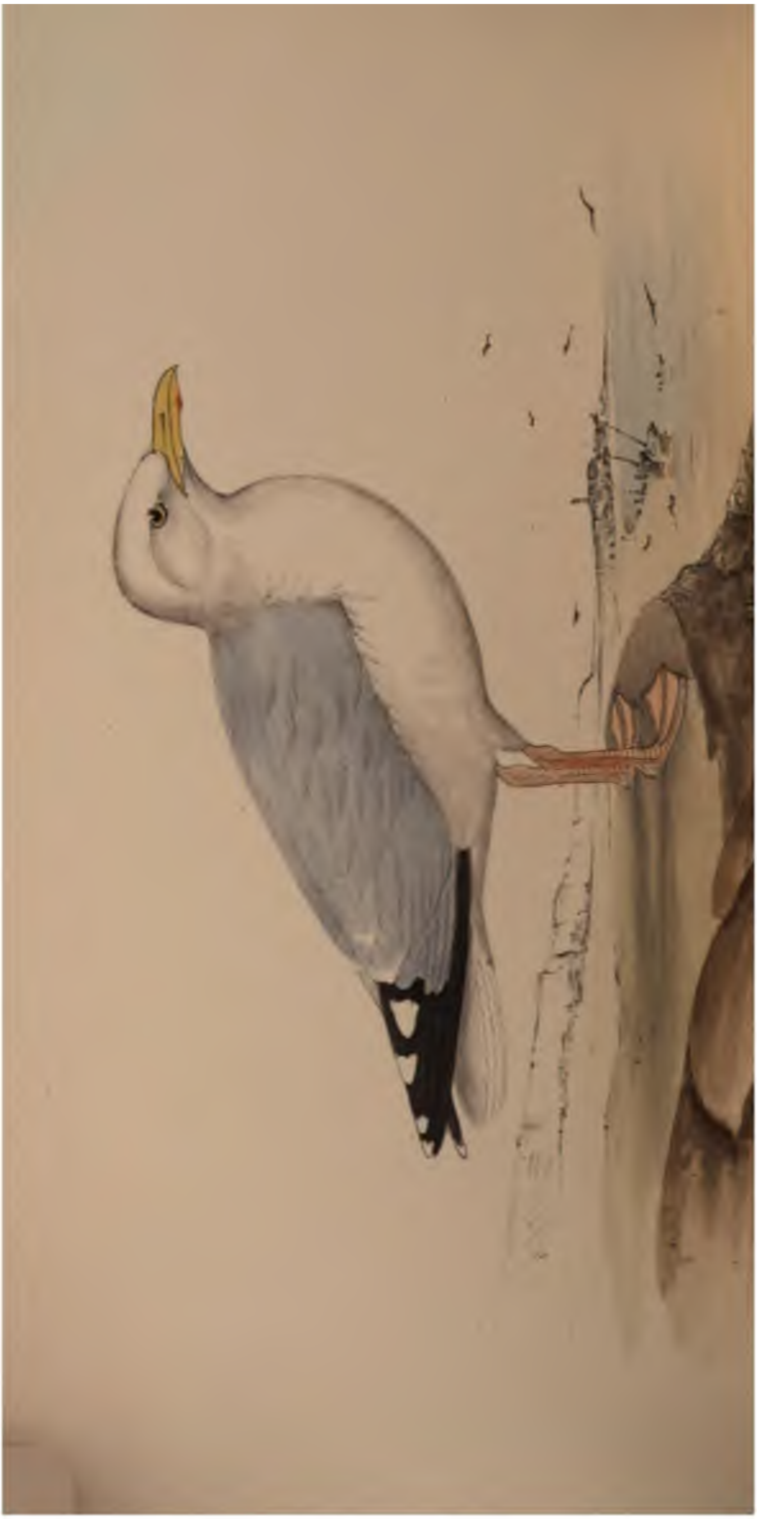


PLATE CCCIX.

HERRING GULL..

LARUS ARGENTATUS.

The Herring Gull is indigenous in Great Britain, very numerous on the southern and western coasts; but, according to Selby, less so on the coast of Northumberland; but no one gives us a reason why this should be the case, although we have no doubt of the statement made by that distinguished naturalist.

The geographical distribution of the Herring Gull extends over most parts of Europe, and, according to some authors, it is found in America, being very common during the winter about New York and Philadelphia.

Besides our shores, those of Holland and France abound with this species; and as far north as Sweden and Norway it is known to be met with. In the Mediterranean the Herring Gull appears periodically, but, according to Temminck, those individuals are chiefly young birds.

The present species inhabits, by preference, the sea-coast and the mouths of large rivers, but under peculiar circumstances this bird extends its flight very far up the rivers, and is consequently more frequently met with on lakes and rivers in the interior than any other of its family.

The food of the Herring Gull consists in fish and other marine productions, the former of which it takes on the wing, and in pursuit of the latter watches the receding waves for what the flood-tide may have washed on shore; and this may be the principal reason why this bird prefers the shores of the ocean to those of other seas. The carcasses of other animals, as well as those of whales, are consumed by it, and consequently, also, any offal that fishermen or sailors may throw overboard.

The flight of the present gull is rather slow, and its general action is that of skimming through the air at an elevation of from ten to twenty feet above the surface of the water, and thus following the course of the shore. On perceiving any suitable object, the bird sweeps in an arched line downwards, and then pounces upon it; but it does not plunge into the water, nor wet itself further than its head in the act of catching its prey.

But the present species appears most to enjoy walking about on the sandy beach, looking for and picking up the small fry, crabs, young lobsters, worms, &c., that the tide has left.

The breeding-places of this species are either the shelves of rocks, or the downs by the sea-side, according to the locality.

The nest is constructed of grasses, in which the female deposits her two or three eggs, in colour, size, and markings as represented in our Plate.

On our coasts, the shores of Wales, the Bristol Channel, and the vicinity of the Isle of Wight are the most frequented. Where rocky shelves are wanting, the nest is generally placed among long grasses or loose stones.

This gull is very easily tamed, and will endure long in confinement, as its wants are easily supplied by raw meat, or any animal matter, provided a proper supply of water is given it, as well for drinking as for washing and bathing.

In the quarto edition of British Birds, we gave a figure of the *Larus argentatoides*, or Greater Herring Gull, a supposed species which had been separated from the *Larus argentatus* of Bewick and other authors, by the Prince of Musignano, on account of the great disparity in size to be remarked in many individuals, one of which we had at the time in our possession, shot on the coast of Suffolk.

This specimen measured twenty-seven inches in length; the beak from the forehead two inches three lines, and three inches six lines from the gape; the wing from the carpus to the tip seventeen inches and a quarter. Its weight was thirty-one ounces; exceeding the measurements usually assigned to the largest specimens of the *Larus argentatus*.

We are now, however, induced to omit the Prince of Musignano's species, on account of the observations made upon it by M. Temminck, in his fourth vol. of "Manuel d'Orn." in which he says,—

"The specimens that we have received from Italy, through M. Cantraine, do not differ in the least from those, sufficiently varied, that are found on our coasts.”

But for the information of the curious on these points, we shall give an outline of the head of the a mentioned specimen in a future number.

The common measurements of the adult Herring are from twenty-two to twenty-four inches, the length of the wing from sixteen inches and a half to s teen and a quarter; the beak two inches three lines the forehead, and two inches nine lines from the gape tarsus two inches six lines.

The plumage of the adult bird in summer has head, neck, and all the under parts pure white; the b wing-coverts, and quill-feathers, cinereous grey; the of the greater wing-coverts are white; the first and se quill-feathers are black on the outer webs; the t fourth, and fifth have less and less portions of b on the outer web; the sixth and succeeding feather tipped with white; the tip of every quill-feather is w and the shafts of these feathers are of the same c as the several portion of the feathers through which run; the beak is yellow, with a red spot on the a of the under mandible; the eyes are pale gamboge low; the eyelids crimson: the legs and feet are yellow.

The winter plumage differs in having fine pale b streaks on the head and back of the neck.

The young bird of the year has the beak and pale flesh red; the tip of the beak dusky; the eyes dusky, and so are the entire quill-feathers; the h neck, and all the under parts ash grey, spotted variegated with pale brown; the upper parts brow yellow and ash colour, all the feathers being edged

CA·BODLEIANA·

those, *sufficiently varied*, that are found on our sea-coasts."

But for the information of the curious on these subjects, we shall give an outline of the head of the above-mentioned specimen in a future number.

The common measurements of the adult Herring Gull are from twenty-two to twenty-four inches, the entire length of the wing from sixteen inches and a half to seventeen and a quarter; the beak two inches three lines from the forehead, and two inches nine lines from the gape; the tarsus two inches six lines.

The plumage of the adult bird in summer has the head, neck, and all the under parts pure white; the back, wing-coverts, and quill-feathers, cinereous grey; the tips of the greater wing-coverts are white; the first and second quill-feathers are black on the outer webs; the third, fourth, and fifth have less and less portions of black on the outer web; the sixth and succeeding feather grey, tipped with white; the tip of every quill-feather is white, and the shafts of these feathers are of the same colour as the several portion of the feathers through which they run; the beak is yellow, with a red spot on the angle of the under mandible; the eyes are pale gamboge yellow; the eyelids crimson; the legs and feet are livid yellow.

The winter plumage differs in having fine pale brown streaks on the head and back of the neck.

The young bird of the year has the beak and legs pale flesh red; the tip of the beak dusky; the eyes are dusky, and so are the entire quill-feathers; the head, neck, and all the under parts ash grey, spotted and variegated with pale brown; the upper parts brownish yellow and ash colour, all the feathers being edged with

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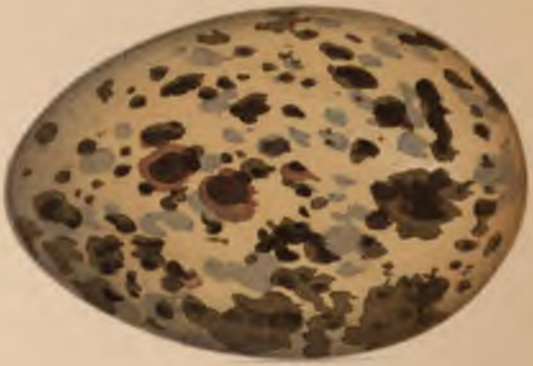


309.

rufous; the tail-feathers are white at the base; shading into brown, and darkest at the extremity; the tips rufous yellow.

The egg figured 309 is that of the Herring Gull, and the head figured 309 is that of the specimen above alluded to.

[illegible]

[illegible]

Mr. Selby, who says that "the breeding stations are on the Steep-holmes and Lundy Island in the Bristol Channel, Sauliskerry in the Orkneys, and the Bass Island in the Frith of Forth, and one or two others upon the Scottish coast." The nature of these places affords tolerable shelter from intrusion, being either isolated rocks, on the uppermost shelf of which the nest is placed, or some grassy island that is unfrequented.

The nest is of considerable dimensions and composed of sea-weeds, herbage, and sticks, and mixed up with earth. Although this bird makes its nest close to that of other gulls, it does not seem to be of a sociable nature among its own species, few being found breeding together in the same locality.

The eggs of the Black-backed Gull are very good to eat, for which purpose they are greedily sought for.

The food of this bird consists in fish, which it takes like other gulls, or steals from the fisherman's weirs at low water, besides which it robs other birds of their prey, and, in many instances, feeds on the birds themselves and their eggs.

The present species is strong on the wing, but not swift; very wary, and therefore difficult to approach within gunshot; it is not only very powerful, but, where it chooses to take up its quarters, chases away every bird from its close vicinity; and if it has been winged, defends itself most courageously.

The entire length of the Great Black-backed Gull is about thirty inches. The wing, from the carpus to the tip, twenty inches; the beak three inches and a half.

The plumage of the adult in summer has the head, neck, breast, and all the under parts, pure white; the back and wing-coverts bluish-black; the tips of the scapulars, secondaries, and tertials are white; the spurious wing white; the quills black, the first two quills have a triangular white spot on the tip; the second has a black spot in the white tip, all the other quill-feathers are tipped with white, and their inner webs lead grey. The beak is wine yellow, with a red spot on the under mandible; the eyes pale yellow; the eyelids bright red; the legs and feet flesh-colour.

In winter the head and neck are streaked with umber brown, like other gulls, with a dark mark before the eye, and the nail on the upper mandible dusky.

The eggs of this species are three or four in number, and are in appearance as represented in plate 310.

PLATE CCCX.

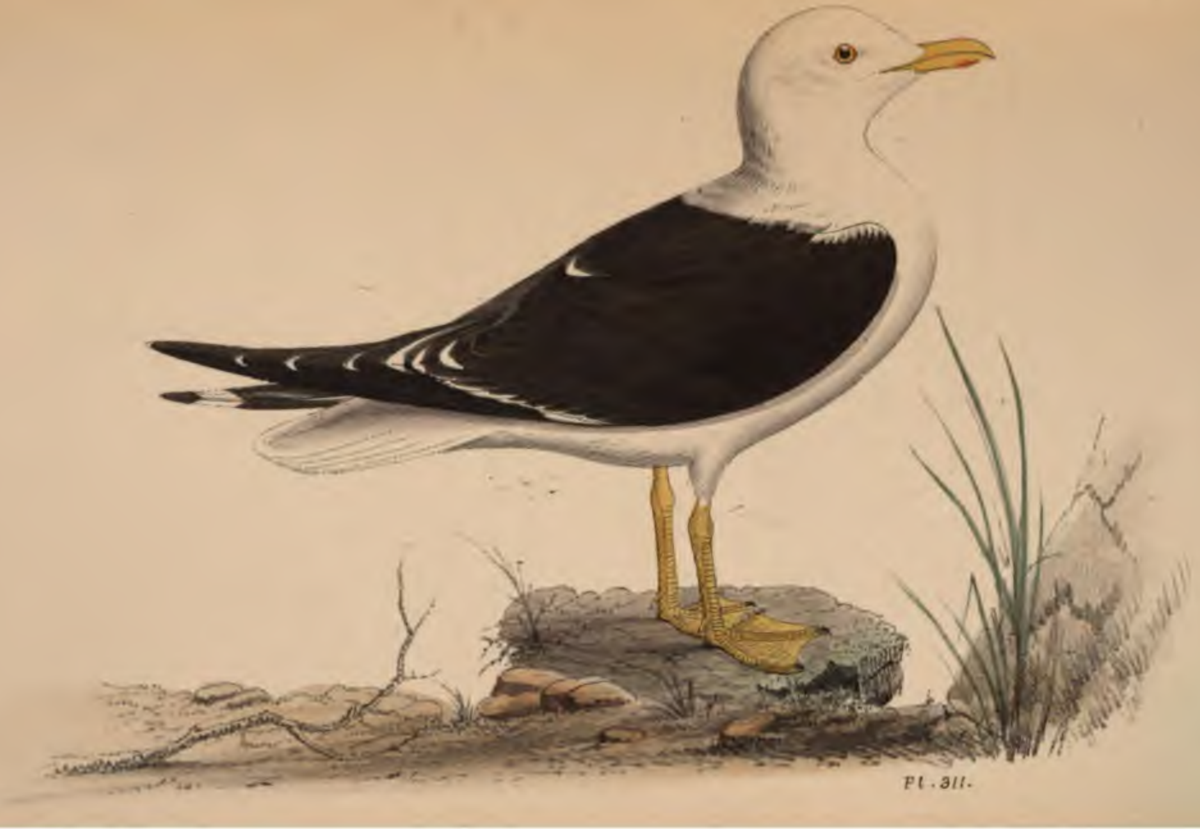
GREAT BLACK-BACKED GULL.

LARUS MARINUS.

The Great Black-backed Gull is a British species, frequenting many parts of the coast throughout the year, but breeding only in a few suitable spots; it is nowhere numerous, the greater number seen together not exceeding eight, and more frequently only numbering two or three. During the migratory seasons this species is met with on the coasts of Holland and France. The principal places suitable to the habits of this bird, are the coasts of Norway and those of the Icy Sea; Iceland, the Faroe and Shetland Islands, Denmark and Sweden, and the northern parts of America; but in the southern parts of Europe and America it is of rare occurrence.

The sea shore is, at all times, the chosen locality of the Black-backed Gull, and the occurrence of it on the shores of inland seas or rivers must be attributed to extraordinary circumstances.

The breeding-places are few on our coast, in consequence of the want of suitable spots; these are enumerated by



Pl. 311.

the downs among the sand. It makes a nest of grass, carelessly heaped up, and in it deposits three or four eggs, as represented in our Plate.

The parent birds are very much attached to their young, and will defend them to the utmost in their power, and like the preceding species will not suffer any intrusion in their immediate neighbourhood, either from strangers, or immature birds of their own species until the nestlings are fully fledged.

The food of the Lesser Black-backed Gull consists principally of fish and other marine animal food; it is also seen to frequent pastures or fresh ploughed ground near the sea, searching for worms and other insects, and their larvæ.

In confinement this bird thrives well, and becomes soon tame; feeding on worms, raw meat, and offal; here we must once more repeat the advice that a plentiful supply of clean water must be given to it, and its place of confinement must be kept clean.

The flight of this species is much the same as that of the great black-backed gull, but, as a natural consequence, lighter, and its evolutions more swift, owing to its more slender shape and longer wings. It skims the surface of the waves so close that it is obliged to perform an undulating flight to keep up with the level of the waves, in order to avoid getting washed by them. On land its general flight is at an elevation of twenty or thirty feet, with exception of the time of migration, during which its flight is very high.

The Lesser Black-backed Gull measures twenty four inches in length; the beak, from the forehead to the tip, one inch eleven lines; the wing, from the carpus, seventeen inches, extending two inches beyond the tail.

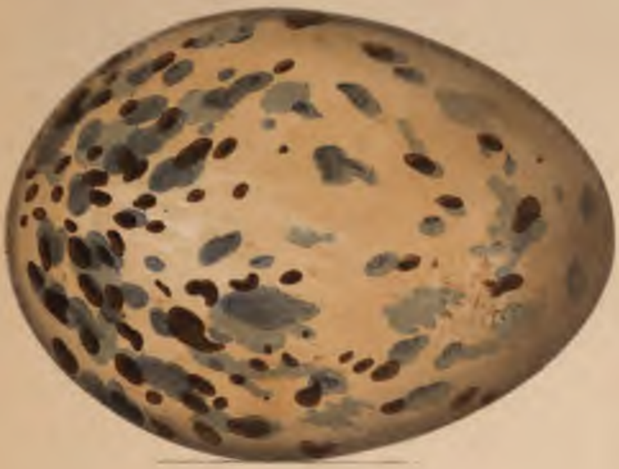
The adult bird in summer plumage has the head, neck, upper part of the back, breast, belly, and all the under parts pure white; the back and wing-coverts are cinereous dusky; the tips of the scapulars and secondaries are broadly tipped with white; the quill-feathers are dusky, and darkest towards their tips, every quill-feather is tipped with white, except the longest. The beak is yellow, with a red spot on the under mandible; the eyes pale yellow, eyelids vermilion red; the legs and feet wine yellow; claws dusky.

The winter plumage differs only in having pale brown streaks on the top of the head, back of the neck, and ear-coverts, and a dark spot before the eyes.

The young bird of the year, which is so nearly similar to that of the herring gull, is nevertheless so decidedly marked that no one need for a moment make a mistake in their recognition, provided he uses his eyes properly. The secondaries and greater wing-coverts are dusky with narrow cinereous yellow tips, and the brown markings all over the bird are not only larger but darker than those of the young herring gull.

In length the quill-feathers exceed those of the young herring gull very considerably, as may be seen in the foregoing description of the dimensions.

The beak is flesh colour at the base, and dusky at the tip; the legs and feet pale flesh red; the eyes brown, with a black spot before them. The forehead, chin, throat, and all the under plumage white, with raw umber spots on the top of the head, the hinder parts of the neck and sides, the breast and belly, &c.; the back and all the upper plumage are raw umber brown, and cinereous ash intermixed, with the centres of the feathers dusky brown; the tail has a black bar on its extremity, edged with white.



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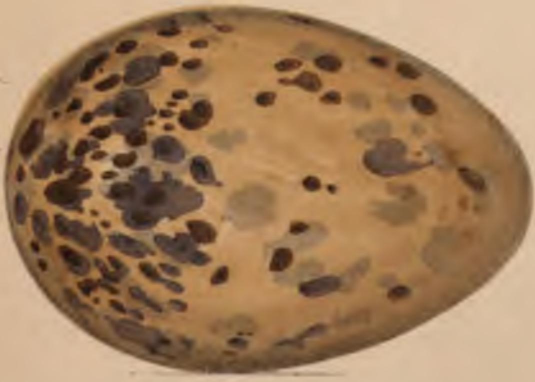


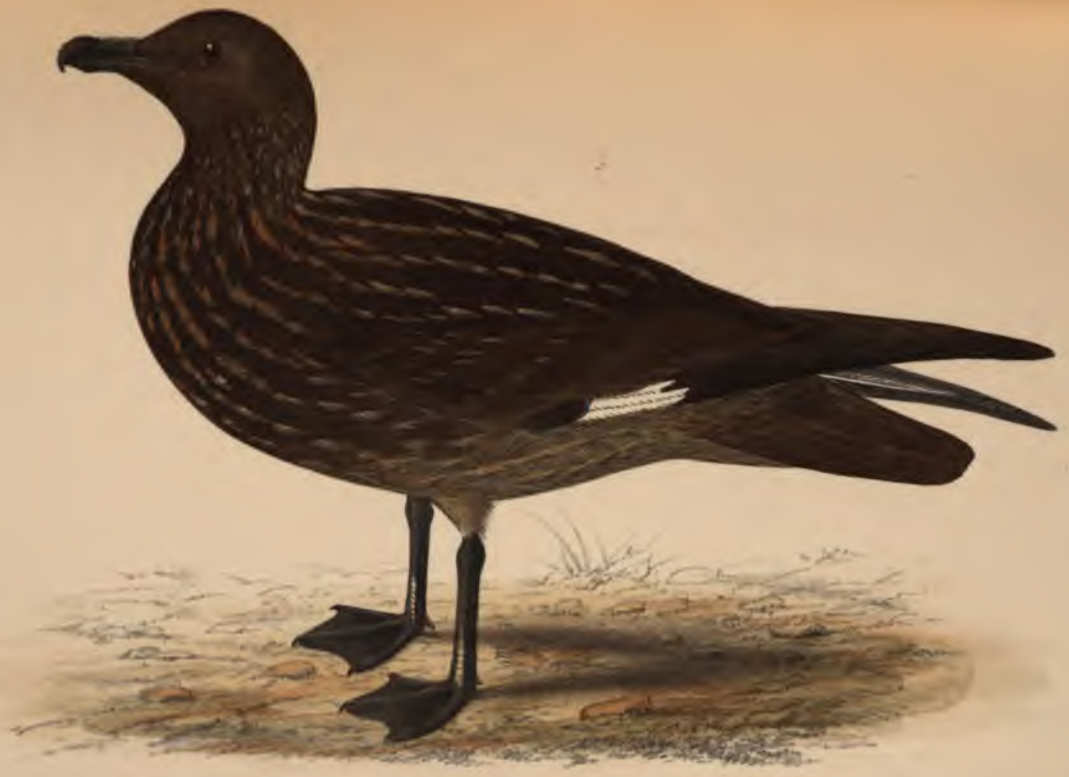
311.

The egg figured 311 is that of the Lesser Black-backed Gull.

We subjoin a repetition of the dimensions of the two species in question, for comparison: namely,—

The entire length of the herring gull is twenty-seven inches; the wing measures seventeen and a quarter inches.

The entire length of the Lesser Black-backed Gull is twenty-four inches; the wing measures seventeen inches.



Pl. 312.

on the shores of the Falkland Islands, in the straits of Magellan, and in Terra del Fuego; it is also an inhabitant of the distant and unfrequented islands of New South Georgia and Kirguellin's land, in the Antarctic ocean, discovered by Captain Cook.

The Common Skua is a regular inhabitant of the open sea, and extends northward from the South Pole as far as the Cape of Good Hope.

The breeding-localities chosen by this bird are mountains or heathy moors that are unfrequented by all other creatures, with the exception of birds, and those are principally sea-fowl.

At the approach of spring, numbers congregate in these parts, but as soon as the breeding-time has ended, these individuals go each their own way, and live either in pairs, or by themselves in a solitary manner, till the following year reminds them of their duty.

While the breeding-season lasts, this Skua is exceedingly ferocious, for every intruder, whether man, bird, or beast, is attacked by it, and driven from the locality that it has chosen. Men when attacked are obliged to defend themselves stoutly; dogs and foxes are driven off the ground, and the eagle itself is obliged to take proper warning.

The nest of the Common Skua is placed on the ground, and formed of weeds, lichens, and grasses; the female deposits therein her two or three eggs, which are in appearance as represented in our Plate.

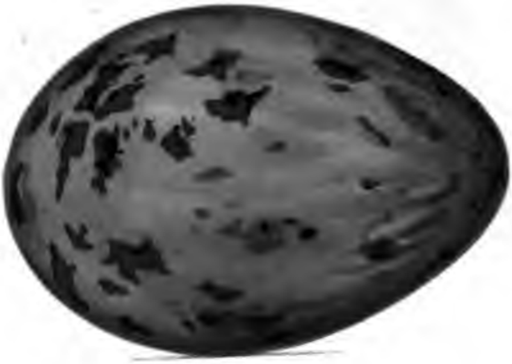
The food of this species consists in fish, offal, animal matter, such as carcasses of the larger kinds of fish, whales, seals, &c., on which the bird fastens itself by its claws, and tears the pieces off by means of its powerful beak.

Fish and other marine animal productions this bird chiefly obtains by pursuing the larger gulls the moment they have picked up some dainty morsel, and harassing them incessantly and with such ardour, that they are obliged to disgorge what they have swallowed. The moment this is done the Skua catches up the meal, and generally succeeds in obtaining it before it reaches the surface of the water.

The flight of the Common Skua is very impetuous, which is a necessary qualification for the part it has to perform in nature; and as it is quarrelsome in its disposition, it is fortunate that a solitary life for the greater part of its existence should agree with its inclination; for the great strength of this bird, added to its powerful beak and strong arched claws, makes it an enemy of no despicable kind.

The entire length of the Common Skua is two feet; the beak is one inch nine lines, black, and much hooked at the tip; the upper mandible is covered for more than one half with a kind of cere; the wing measures sixteen inches; the tarsus two inches eight lines.

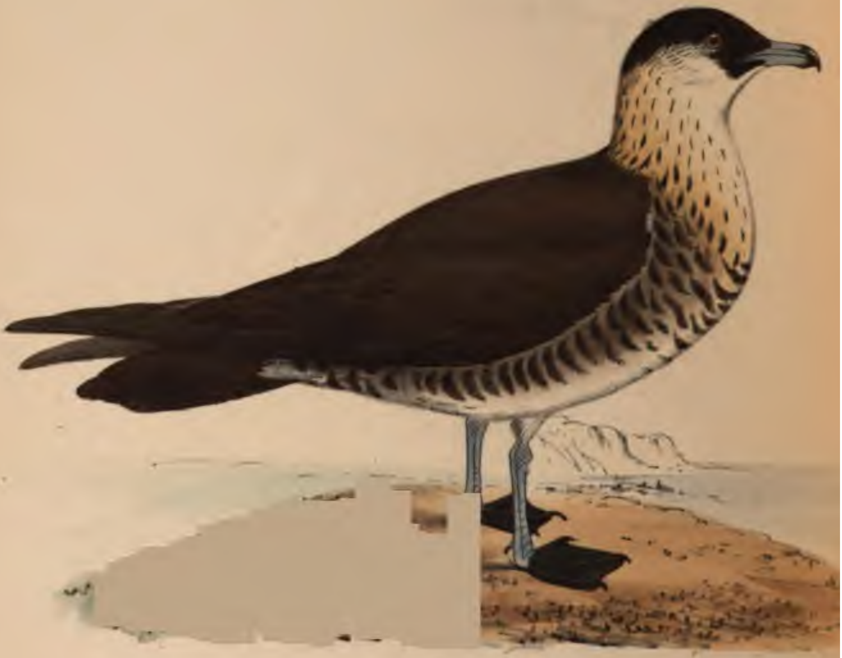
The adult bird has the head, cheeks, and regions of the eyes yellowish brown; the neck and all the under parts reddish ash colour; the feathers of the neck are wiry and pointed, and stand partly erect when the bird is in a passion; the back and scapulars are dark reddish brown, each feather being dusky on its edges; the wing-coverts, secondaries, and tail, are brown; the quill-feathers are white on their basal half, the remainder deep brown; the first quill has the entire outer web brown; the shafts of the quills and



312.

tail-feathers are white; the eyes are brown; the legs and feet are black, the tarsi largely scaled in front, and rather rough on the hinder surface; the claws are strong and black.

The egg figured 312 is that of the Common Skua.



Pl. 313.

PLATE CCCXIII.

POMERINE SKUA.

LESTRIS POMARINUS.

The Pomerine Skua is a winter visitant in Great Britain, very much resembling the common skua in its habits, but its occurrence has principally been on the coast of England instead of Scotland.

This species is less numerous in Europe than the common skua, but more frequent in North America. During the summer it inhabits the coast of Norway, some parts of Iceland, the Hebrides and Orkneys. On the coasts of Denmark, the Baltic, Holland, and the northern shores of France, it occurs during the winter months. On the continental lakes some instances are recorded of its appearance in the immature state; and Dr. Schintz observes that this occurs every winter in Switzerland.

In America this species frequents the shores of many parts of the continent and islands; it is particularly numerous in Newfoundland, the northern outlets of Hudson's Bay, and other Arctic seas.

PLATE CCCXIV.

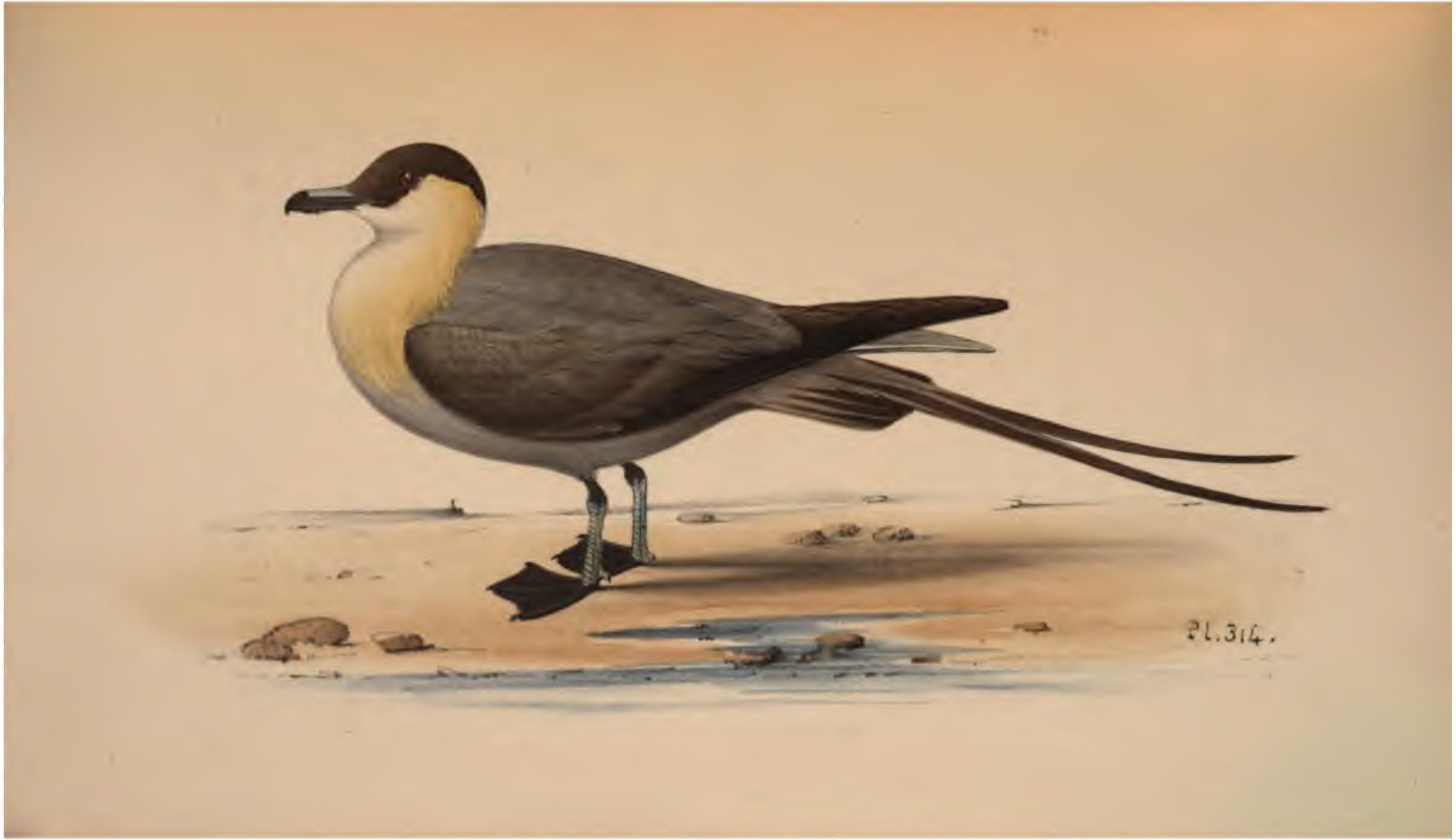
ARCTIC SKUA.

LESTRIS PARASITICUS.

The Arctic Skua is occasionally met with on the coasts of Scotland and Ireland, but hardly ever in the mature plumage, and it is apparently more a frequenter of the eastern shores of the continent than of our own.

This species is also an inhabitant of the northern parts of Europe, Asia, and America, reaching as far as Greenland and Spitzbergen. During the summer months it resides on the shores of Norway, in the Feroe and Shetland Isles, the Orkneys, Hebrides, and other islands off the coast of Scotland and Ireland, also about the mouths of the large rivers in Siberia. In America it is met with on the coasts of Labrador and Hudson's Bay. On the European continent the Arctic Skua is more frequently seen than either of the preceding species.

The habits of this skua are very similar to those already described, but it is very easily distinguished from them by its very long middle tail-feathers, and by the manner of its flight while in pursuit of the devoted gulls, upon whom *le*



Pl. 314.

droit du plus fort presses somewhat too heavily: its flight is then performed in short and undulating starts. While pursuing its usual undulating progress, it flies sometimes very quick, and at others as slow, and there is hardly a bird whose flight is more varied, or kept up for a greater length of time without taking rest. At times this species rests by swimming on the watery surface, but does not remain long in that posture. When the Arctic Skua alights upon the shore, it runs about for some time in the same manner as the plovers.

The Arctic Skua is said to breed on the shores of Scandinavia, the western shores of Greenland, and in Newfoundland, where it is exceedingly numerous; it also breeds on the swamps of the great rivers of Siberia.

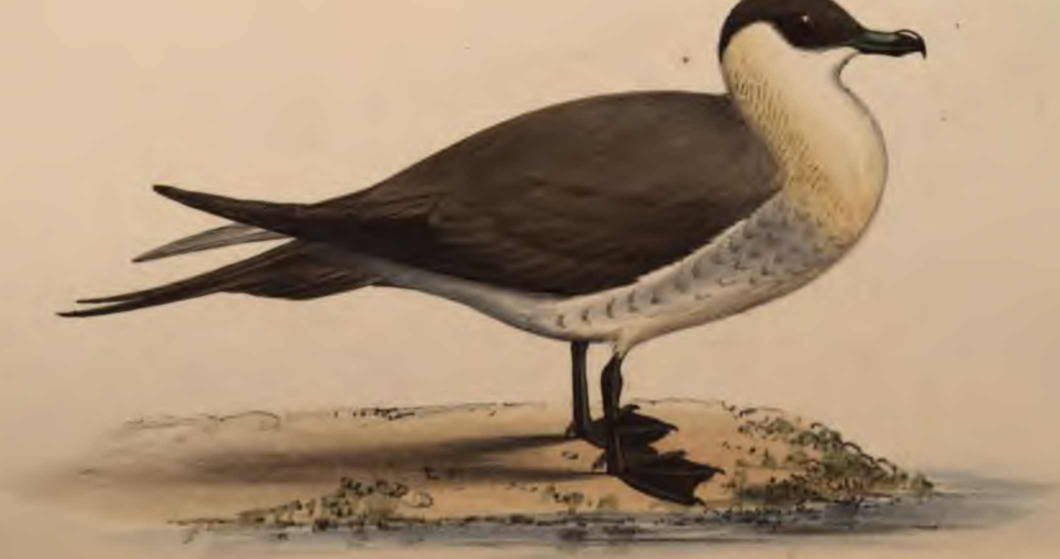
Its eggs are two in number, as represented in our Plate.

The Arctic Skua measures twenty-two inches from the tip of the beak to the extremity of the middle tail-feathers; the beak, one inch nine lines; the wing, eleven inches nine lines; the tarsus, one inch six lines.

The adult bird has the chin, cheeks, sides of the neck and breast, pale ochrous yellow; the belly, yellowish white, passing, upon the flanks and vent, into greyish brown; the feathers of the hinder part of the neck are wiry and pointed; the crown of the head, nape, back, quills, tail, and under tail-coverts are dusky, tinged with grey; the head, quills, and tail the darkest; the shafts of the quills and tail-feathers are almost white from their base to near the tip; the beak is bluish at the base and black at the tip; the legs are partly blue and partly black; the feet entirely black in living specimens, but the blue coloured portions become straw yellow in preserved specimens; the eyes are chestnut brown.

The young bird of the year has the head and neck pencilled with clove brown on a pale yellow ground; the upper plumage clove brown, with pale yellow tips to the feathers, and some brown feathers on the ridges of the wings: the quills and tail dusky, with part of the inner webs white; the two middle feathers half an inch longer than the rest, and very pointed; the under plumage yellowish white with bars of wood brown; the tarsi and posterior part of the webs and toes yellowish white and blue; the frontal portion black.

The egg figured 314 is that of the Arctic Skua.



Pl. 315.

PLATE CCCXV.

RICHARDSON'S SKUA.

LESTRIS RICHARDSONII.

The Richardson's Skua is a periodical visitant on the shores of the Hebrides and Shetland Isles, where some pairs annually breed.

This bird is principally met with on the northern seas and coasts of Europe, Asia, and America. In Europe it is found on the shores of Norway and Iceland; and coming southward from thence, visits the eastern and western coasts of England.

On the continent of Europe many instances are known of its occurrence to persons who pay particular attention to this species. The localities where they have been obtained were stubble-fields, meadows, and even woods contiguous to some marshy land.

Dr. Richardson, who accompanied Sir John Franklin in his search for the north-west passage, was the first ornithologist who noticed the distinction between the present and the foregoing species; but it requires still great attention to distinguish them in all states.

We will endeavour to explain the most prominent marks of distinction by which the present species may be known.

The adult Richardson's Skua measures seventeen inches from the end of the beak to the tips of the tail-feathers, next to the two elongated middle feathers, or twenty inches to the tips of the longest feathers in the tail. The grey plumage on the breast entirely encircles the front, and the belly is white; the legs are black, and of a uniform colour.

The arctic skua measures only thirteen inches and a half to the same part, or twenty-two to the extremity of the longest feathers in the tail. The dusky grey colour on the breast is confined to the *sides* of the breast, leaving the front or middle part white, with a yellow tinge; the legs are blue on the front and sides of the tarsi, and black at the back and lower joint, as well as the toes and their membranes.

Many instances of the boldness and hardy nature of this species have been recorded by naturalists; namely, that it will suffer itself to be fired at several times before it makes any attempt to fly off; and if sticks or stones are thrown at it when on the ground, it will run up and bite or peck at them.

Sociability is not one of its virtues, which the frequent quarrels and fights that take place among individuals of this species prove, when the birds scratch and bite each other until they tumble together to the ground.

The food of this species consists in the same disgusting matter as that of the preceding; but land insects, small birds, and their eggs must be added to the bill of fare.

The breeding-places of this species are principally situated in the northern regions; on some unfrequented heath, at a distance from the sea, parties of thirty or forty are found to congregate in a certain space or neighbourhood, but the nests are not placed very near together; they are composed of grass and lichens. Snipes and oyster-catchers are the only birds that breed in the immediate vicinity of the Richardson's Skua; of the snipes they take no notice, and with the oyster-catcher they do not meddle, as the blows of its strong beak are sufficient to ensure respect.

The eggs are two in number, as represented in our Plate.

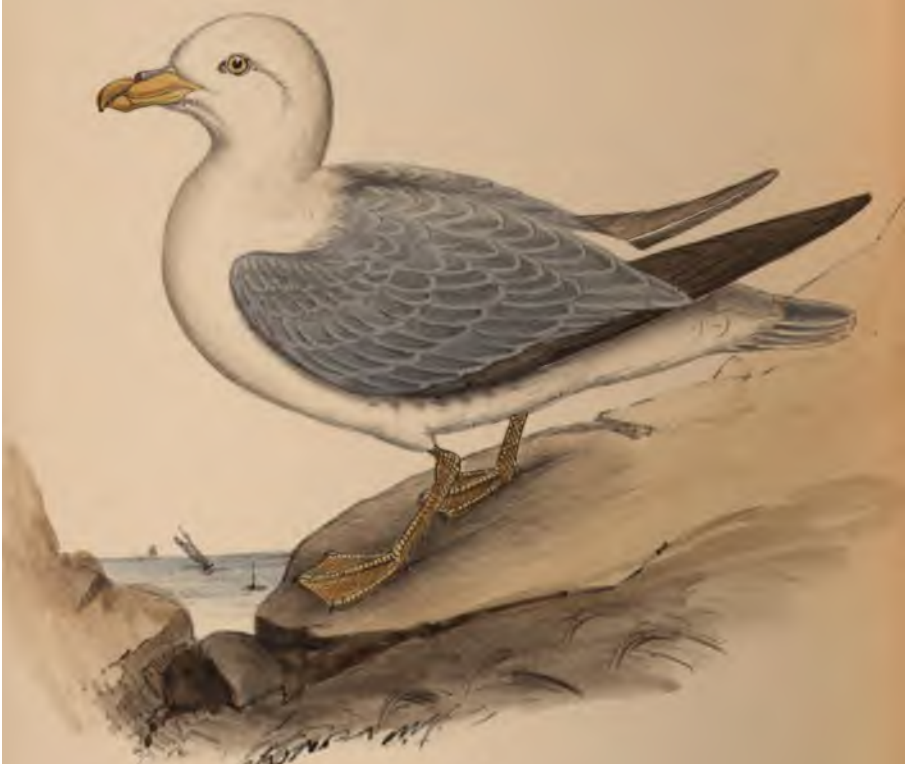
The length of Richardson's Skua is, as before enumerated, twenty inches from the tip of the beak to the extremity of the longest tail-feather; the wing thirteen inches nine lines; the tarsus one inch nine lines; the middle toe the same length.

The adult male has the face, top of the head and nape, back, scapulars, tail, and rump, sooty brown; the chin, lower part of the face, and all the under parts white; the sides of the neck and upper part of the breast are more or less tinged with ochrous yellow; the lower part of the breast, sides of the belly, vent, and under tail-coverts are dashed with ash grey, and slightly tinged with yellow and sooty brown; the beak is bluish on the cere, and black at the tip and under mandible; the legs are black; the eyes are brown.

The immature plumage is entirely sooty brown, paler on the under parts, and having a cinereous bloom over all parts, extending even over the legs and feet.

As this species is, like the other skuas, several years before it arrives at maturity in its plumage, much diversity of appearance may frequently be observed among the different pairs, young and old being indifferently matched together.

The egg figured 315 is that of the Richardson's Skua.



Pl 316.

PLATE CCCXVI.

FULMAR PETREL.

PROCELLARIA GLACIALIS.

The Fulmar Petrel is an annual visitant on the island of St. Kilda, and some of the other Scottish islands in that neighbourhood. Pennant remarks, "no bird is of such use to the islanders as this; the Fulmar supplies them with oil for their lamps, down for their beds, a delicacy for their tables, a balm for their wounds, and a medicine for their distempers."

The numbers that breed in the island of St. Kilda are very great, and the inhabitants frequently risk their lives in order to obtain their eggs.

This species is, as its name implies, an inhabitant of the frigid zones, both of the northern and southern hemispheres, and not often met with in the more temperate climates; stragglers have occasionally visited the several coasts of England and of Holland, but only when driven thither by heavy gales of wind.

The habits of the Fulmar Petrel are peculiar to itself; it passes all its time at sea, usually flying close to the surface of the water, or resting itself on the floating masses of ice that constantly abound in those latitudes.

Its food seems to consist entirely of the carcases of dead marine animals. Many Fulmars follow the track of whale-fishers, and receive their share as soon as a fish is being cut up; they are also constantly on the look out for any fat morsel that is thrown overboard; and on such occasions the jealousy that becomes apparent for the choicest part of it is very considerable, judging from the fights that ensue.

During the breeding-season, this species resorts to the most perpendicular rocks on the coasts, where its grassy nest only occupies a small space on the shelf, or is placed in a hole in a rock; generally several nests of this kind are found close together, with one single egg in each. In the island of St. Kilda, the entire face of the rocks is literally covered with these nests.

The birds are captured for the uses enumerated in the above quotation from Pennant; but it is necessary to add, that the oil which is procured from these birds, is emitted by the Fulmar Petrel either in defence, or in the hope of driving away its enemies, and becomes ejected, unless the bird is taken by surprise; wherefore the pursuit of this bird is not only attended with the danger of falling down the precipitous places it frequents, but requires also skill and good management.

The young birds, while in the care of the parents, are fed with the oil in question, and we are informed that the young, and the rock on which they are called into being, are perfectly impregnated with the rank smell of this peculiar aliment.

The flight of the Fulmar Petrel is, as we might expect from its habits, more like that of the swift (*Cypselus mura-*

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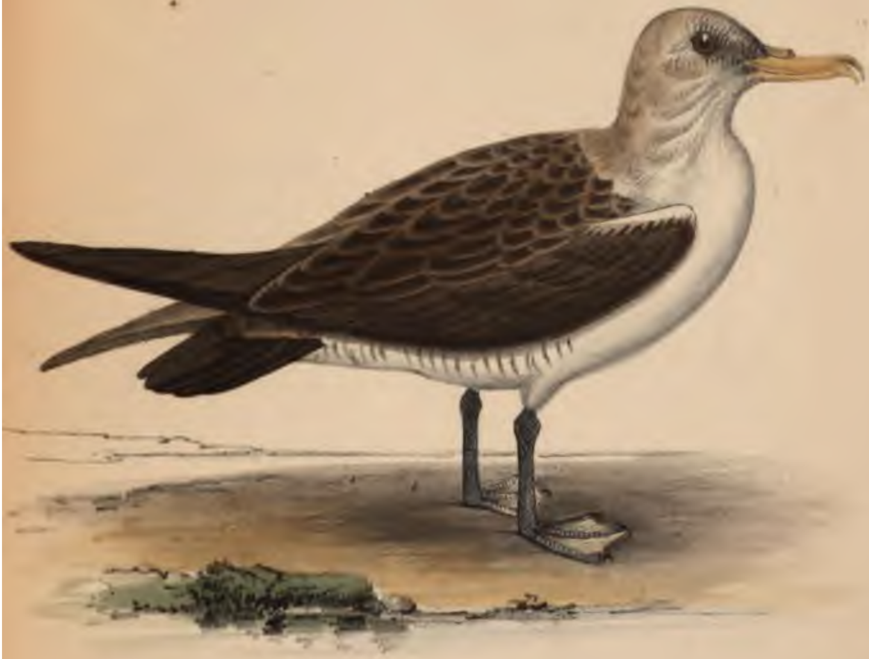
rius) than of a gull; but its manner of walking, and its posture on land or icebergs is ungainly, owing to the position of its legs; these bend very short at the tibia, the feet are therefore greatly brought forward.

The measurements of this Petrel are as follows:—Entire length nineteen inches; the wing thirteen inches; the tarsi two inches two lines; middle and outer toe two inches eleven lines; the hind toe is a spur only; the beak one inch six to seven lines.

The adult bird has the head, neck, breast, belly, vent, and under tail-coverts white; the upper plumage pale bluish ash; the tail the same, with white edges to each feather; the quill-feathers are dusky black; the legs and feet are ochreous yellow; the beak pale ochreous yellow; the tube on the upper mandible a deeper tint of the same colour; the eyes are pale yellow.

The young bird has the eyes pale dusky; all the plumage bluish grey, of a deeper tint than in the adult, with paler edges to all the feathers; the chin, throat, and upper part of the breast are white; before the eye is a black spot.

The egg figured 316 is that of the Fulmar Petrel.



Pl. 317.

In its flight, as well as in its manners on the water, this species much resembles the Manx petrel: it runs rapidly when on land, where, however, it does not appear at ease, but carries its body very near the ground: it is crepuscular in its habits, concealing itself, when in captivity, during the day.

According to M. Temminck this bird is very common on the shores of Newfoundland, where the persons employed in the cod-fisheries make use of its flesh for baiting their hooks. In Iceland this bird is rare.

The food of the Cinereous Petrel consists in fish, worms, and marine refuse.

It is said to breed in thousands on the shores of Newfoundland.

The entire length of the Cinereous Petrel is eighteen inches; the beak one inch nine lines from the forehead to the tip, which has a double tube on the upper mandible, from whence the beak is slightly curved upwards, and terminates in a deep hook; the wing measures, from the carpus to the tip, twelve inches three lines; the tarsi two inches; the middle toe two inches four lines and a half; the hind toe is a spur only.

The feathers of the head, neck, sides, and flanks, are pencilled and spotted with pale brown and ash colour; the back and wing-coverts are dusky brown, with paler edges to the feathers; the upper tail-coverts are pale yellowish brown; the edges of the feathers pale straw colour; the wings and tail are dusky; the eyes are dusky; the beak yellow; the legs and feet yellow, with a cinereous grey tinge on the outer part of the tarsi.

PLATE CCCXVIII.

MANX PETREL.

PROCELLARIA ANGLORUM.

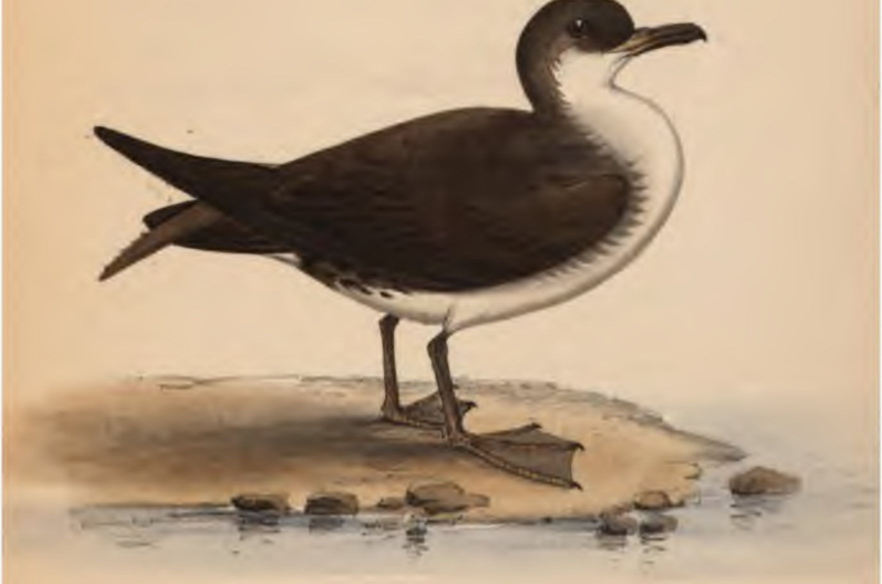
Manx Petrel is frequently met with on the Island of St. Kilda, and on most of the Hebrides and Orkney Islands, as well as on the northern coast of Scotland and Ireland; it visits the Isle of Man, where it was formerly very numerous, and also the western coasts of England and Wales.

Although an inhabitant of the north, this bird is not so frequently met with on the shores of Iceland, or the Faroe Isles, as might be expected, but is well known near Heligoland, and the western shores of the Danish Isles.

Some specimens of this bird have been obtained in the Mediterranean, and it is said that its occurrence out at sea, in the winter, as far as the equator, is not unfrequent; but this requires confirmation.

In America, the Manx Petrel extends from the coast of Labrador to the most southern provinces of the United States.

The present species passes most of its time on the open sea, where its constant employment is swimming, and partly



Pl. 318.

diving in pursuit of sprats, anchovies, the *sepiadæ*, and other marine productions. It is very amusing to watch a flock of these Petrels thus employed: the birds are seen swimming on the waves, with their heads in the water, all in the same direction, and moving on very rapidly, the hindermost bird always flying up and settling in advance of the foremost, like rooks following a plough. Fishermen, when in pursuit of their calling, watch carefully the movements of these birds, and, when they see them thus employed, lower their nets with a tolerable certainty of finding the shoals, of which they are in search, near the surface.

The flight of this species is very quick, and almost always pursued close above the surface of the waves, which necessarily requires great agility in order to escape being overtaken by the undulations of the surface; the diving is performed by shooting head foremost under water, in pursuit of the prey that comes near its surface, but never by striking the fish from above, while in the act of flying.

In consequence of the formation of the legs and feet, and their position, this bird is incapable of walking, or standing for any length of time on the ground, or showing itself off to any advantage.

During the breeding-season the Manx Petrel comes to the rocky coast, and chooses the loftiest shelves, or the very tops of the rocks that are covered with verdure; in the earth or sand of which, the bird makes a hole of about two feet in depth, like the hole of a rabbit, and at its further extremity the female deposits a single egg, of size and colour as represented in our plate. It seems as if the digging of the hole for the nest is a work of labour and time, as the birds may be seen to work at it for some weeks before an egg is found, which need not be sought for before the middle of June. The male and female incubate the egg alternately, and feed the young with what they furnish out of the tubular appendage upon the upper mandible, like the foregoing species; and they are so much attached to their offspring, that they will allow themselves to be taken out of their hole without attempting to take wing.

The present species measures fourteen inches in length; the beak one inch six lines from the forehead to the tip; the tarsi one inch nine lines; the wing nine inches six lines.

The adult male has the upper plumage, from the base of the upper mandible to the extremity of the tail, dusky black, with a slight tinge of grey; the feathers being of a glossy texture; the sides of the neck transversely barred with grey; the thighs spotted with the colour of the upper plumage, intermixed with grey, the under parts are pure white, the beak is brown at its base, and black towards, and including the tip; the legs and feet are brown on the hinder part, and the outer toe; the front and sides of the tarsi and toes, flesh colour; the webs rayed with brown, the eyes dark brown.

The young of the year have the under parts ash-colour; the upper plumage light sooty brown, which plumage becomes irregularly spotted with dusky black in the intermediate moult, which takes place between the immature and mature plumage.

The egg figured 318 is that of the Manx Petrel.

PLATE CCCXIX.

STORM PETREL.

PROCELLARIA PELAGICA.

THE Storm Petrel is the well-known "Mother Carey's Chicken" of mariners, which, from its natural habits, preferring gloomy weather to fine, is considered as the ill-omened indicator of storms and shipwrecks, and is therefore, naturally enough, greatly feared by superstitious seamen.

On the coasts of Great Britain this bird is known to breed, provided the locality suits its fancy, and heavy gales also frequently drive whole flights or flocks of this species, not only towards our shores but far inland; many of which become attractive objects in poulterers' shops, in London and other towns.

The geographical distribution of this Petrel extends, in Europe, over the seas that wash its more rocky shores, whether north or south; but owing to the ever-changing atmosphere of the Scottish islands, greater numbers are observed in those parts than elsewhere; on the coasts of Holland, France, and Italy, it is also met with. In America it is more plentiful than in Europe, and on the southern coast of Africa it has also been captured.

The localities frequented by the Storm Petrel are rocky shores, in the holes and crevices of which the bird can hide itself during the greater part of the day; and early in the morning, or when the light begins to be more tempered, about sunset, this bird comes forth from its nook, and flies incessantly and close over the surface of the sea in search of food, which consists of the insects that float on the surface, or that are found upon sea-weeds, or on floating dead animal matter.

The flight of this bird is as rapid as that of our swift, and it is so well calculated to perform its part during windy weather, when the waves run high, that its rising and falling with them is one of the most interesting sights that can be witnessed on such occasions. It is by no means surprising that the Storm Petrel is met with at great distances from the shore, its flight being so rapid, and the bird so well able to sustain itself upon the wing for a great length of time.

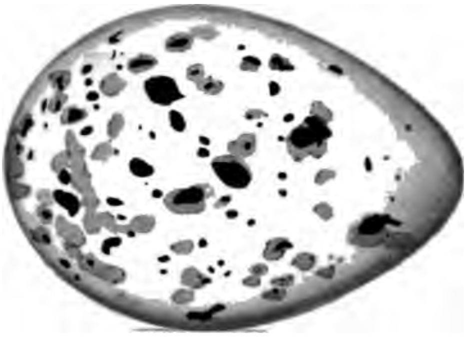
That this bird swims at times for the purpose of gleaning the insects from some floating substances, or in order to rest itself, is well known, and it consequently does not require dry land at any other time than during the breeding-season.

If the Storm Petrel does not meet with a proper crevice on the rocky sea-coast, it chooses, for a place in which to deposit its eggs, a rat's or rabbit's hole. The female deposits but one single egg, as represented in our Plate.

This species is by no means shy; when handled alive it vomits a quantity of very rancid oil.

In confinement it does not endure long, and the only food it takes under such circumstances is train-oil.

This bird is so fat, and contains besides such a quantity of oil in its stomach, that the northern inhabitants of the coast



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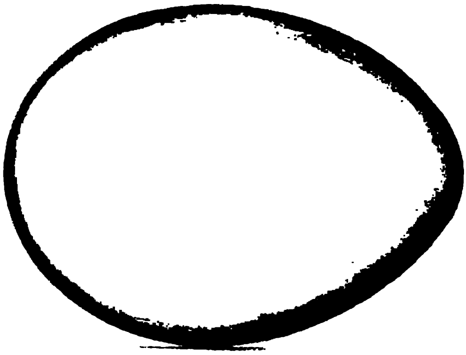


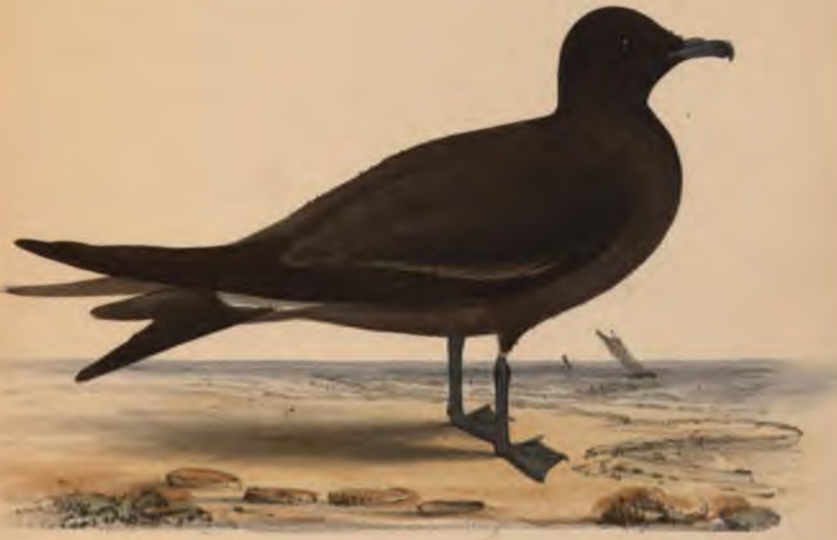
use it as a lamp or candle, by drawing a wick through the body, and setting light to one end of it.

The Storm Petrel measures five inches ten lines in length; the wing from the shoulder to the tip four inches seven lines; the beak from the forehead five lines and a quarter; from the nostril to the forehead three lines; the tarsi ten lines; middle toe ten lines; the hinder toe half a line.

The chief plumage of the Storm Petrel, in the adult state, is sooty black; the tips of the tertials are white, as also the tips of the greater wing-coverts; the upper tail-coverts and sides of the vent, the base of the outer tail-feathers white; the beak, legs, and feet are black; the eyes are dark brown.

The young bird is not so deep coloured; the tips of the greater wing-coverts are ferruginous; the tips of the tertials and the sides of the vent have little or no white.

The egg figured 319 is that of the Storm Petrel.



Pl. 320.

Petrel expresses itself in the words *keckereck-ee, keckereck-ee!*

This species passes most of its time at sea, flying in pursuit of its favourite food, namely, the insects that float on the surface of the waves; and occasionally steering its course in the wake of some vessel, in order to pick up any acceptable refuse that may be thrown overboard, or to take advantage of such shelter as its hull may afford during a heavy gale.

During the breeding-season, the Fork-tailed Petrels, like the former species, approach the rocky shores in flocks, and having made themselves acquainted with the locality, each pair chooses a desirable fissure in the rock, or a deep cavity among the loose stones that lie heaped about; sometimes the burrow of a rabbit is selected, according to circumstances.

After having made choice of their residence, they hide during the day time in these sheltered situations, and only leave them in the evening for the purpose of feeding, and do not always return until early in the morning.

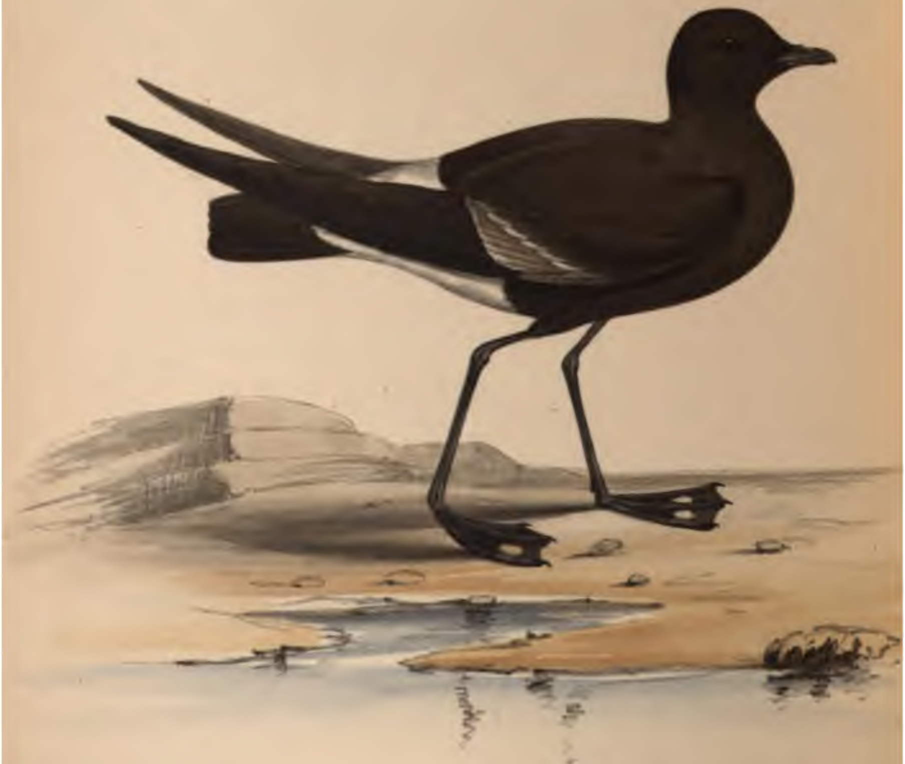
The female lays her single white egg in a cavity on the bare ground, without taking the trouble to make a nest.

The Fork-tailed Petrel measures seven inches three lines in length; the wing from the carpus to the tip six inches; the tarsi one inch; the beak rather more than six lines from the forehead to the tip.

The plumage of the head and back of this bird is a dull black; the sides of the vent, and the upper tail-coverts are white, with the shafts of the feathers brown; the wing-coverts are sooty black; the quill-feathers and tail black; the beak, legs, and feet black; the tail is forked; the eyes dark brown;

the under plumage is rather lighter than the upper; the tips of the greater wing-coverts and secondary quills are yellowish brown, forming a band of that colour across the wing.

The male and female are alike.



Pl 321.

PLATE CCCXXI.

WILSON'S PETREL.

THALASSIDROMA WILSONII.

Wilson's Petrel is an occasional visitant in Great Britain, whither it is probably driven by long continued gales from the west, as we are informed that this bird inhabits the shores of America, as far as Cape Horn. It is also common on the coasts of Chili, in the United States, and Brazil. It sometimes occurs near the Cape of Good Hope, on the coast of Spain, and the shores of the Mediterranean.

For the chief information on the present subject, we are indebted to American ornithologists, who are naturally better acquainted with the habits of a bird that is frequent upon their coasts, than we can possibly be from the observation of a few accidental occurrences.

The food of the Petrel now under consideration consists of the smallest fishes, mollusca, and marine vegetation, and it eagerly swallows such inviting fragments as are thrown from the decks of vessels.

Several islands situated off the southern coast of Nova Scotia, which are formed of sand and light soil, and scantily covered with grass, afford Wilson's Petrel proper localities for breeding, and consequently many resort thither about the beginning of June.

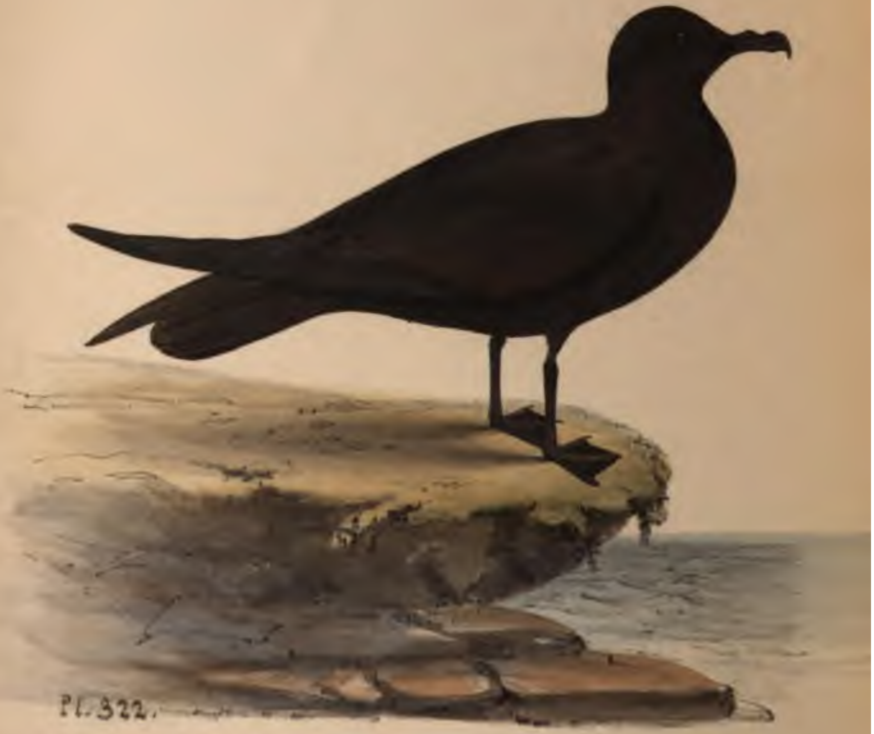
These birds make burrows of about two feet deep, and at the further end the female deposits her single white egg.

Like the other Petrels this species remains in or near its nest or burrow during the day, and goes in search of food on the approach of evening.

The entire length of Wilson's Petrel is seven inches and a half; its beak from the forehead six lines, from the gape eight lines; the wing from the carpus to the tip six inches two lines; the naked part of the tibia six lines, the tarsi one inch six lines; the middle toe one inch three lines.

The beak is black; the eyes dark brown; the legs and feet black with a pale yellow oval mark on the webs; the head, neck, back, wings, and tail are dusky black; the greater wing coverts and secondaries reddish black, paler at their ends and tipped with white; the under parts are all sooty black; the outer feathers of the vent are white, and some of the under tail-coverts are tipped with white; the rump is white to the extent of two lines; the black which occupies the tip of the square tail is one inch and a half in length; the base of the three outer tail-feathers are white.

The male and female are alike: respecting the plumage of the immature birds of this species nothing has as yet been made known.



Pl. 322.

PLATE CCCXXII.

BULWER'S PETREL.

THALASSIDROMA BULWERII.

Bulwer's Petrel is one of the rarest of British Birds; it has been figured by one or two Ornithologists, but we should hardly have done so in our present work if we had not been informed, very lately, that a second specimen had been taken at York by fishermen during the past winter, and that a third was killed off a collier at Scarborough.

Our drawing is made from a specimen in the possession of Mr. Gardner, a bird-stuffer in London, and the dimensions were also obtained from the same specimen.

The entire length, from the tip of the beak to the extremity of the tail, is eleven inches; the beak one inch; the wing, from the carpus to the tip, eight inches; the tarsus one inch; the middle toe one inch and a quarter.

The plumage of this bird is cinereous dusky, approaching to sooty black; the greater wing-coverts are tipped with chocolate brown; the beak and legs are black.

Respecting the habits of the present species we can say no more than that it most probably subsists upon the like food as the foregoing, as its powers of flight must be much the same; and the formation of the divers parts of this bird agrees with them in most respects. It is said to be an inhabitant of the seas about Madeira and the Canary Islands.

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